

*Redefining the boundaries of technology*

# C-BUS

## Product Overview Catalogue

**CLIPSAL®**



**C-BUS®**

Control and Management System

[clipsal.com/cis](http://clipsal.com/cis)

# Clipsal Integrated Systems

## Overview

Clipsal® Australia first started from humble beginnings in 1920, with a range of adjustable conduit fittings that 'clips all' sizes of conduit, thus the name Clipsal® was born. More than 85 years on, Clipsal® has become one of the leading producers of electrical products in its field.

As a company and brand, Clipsal® has continuously developed and evolved to meet the needs of commercial and domestic requirements. Development in automation products led to the formation of CIS (Clipsal® Integrated Systems) in 2000, a business unit of Clipsal® Australia specialising in the manufacture of electronic lighting and building automation products. Since then CIS has grown rapidly, gaining widespread acceptance in major commercial and domestic markets. Today CIS employs more than 250 personnel.

Through extensive research and design, CIS developed the C-Bus® Energy Management and Control System back in 1994, and since then C-Bus® has become the 'benchmark' of CIS' product range. Initially, C-Bus® was designed and manufactured for commercial application, however, due to increasing worldwide interest, C-Bus® has been adapted to suit the domestic market with the release of C-Bus® DIN Rail Series and other associated products.

With the development of C-Bus® for domestic application, a new generation of products was born including the Scene Master® scene controller, C-Touch™ colour touch screens, Neo® C-Bus® wall switches, and Saturn™ C-Bus® wall switches.

When the C-Bus® Neo® range was first launched in 2002, it immediately became the 'new face' of Clipsal's® C-Bus® offering. Neo's® superb design was one of inspiration, as Clipsal® consulted architects and designers for their input, to create a switch that complimented the beautiful home environment. The Saturn™ Range of switches is also a real 'head turner'. Manufactured from handcrafted glass with bevelled edges, and apertures cut for its distinctive circular, backlit switches.

The year the Neo® Range was launched it won the Australian Electrical and Electronic Manufacturer's Association (AEEMA) Award for Excellence in Commercialising Research & Development. In the same year, C-Bus® took on the best of European technology to win the 2002 UK Electrical Product Award in the category of Contribution Towards Energy Saving.

This was a significant achievement against other established brands. C-Bus® really proved its worth over competitor's technology based on proven IP (intellectual property), superior performance, features and customer value.

CIS continue to set new precedents by expanding the C-Bus® Range. Introducing products such as C-Bus® Wireless Technology™, Dynamic Labelling Technology™, Reflection™ Series, Saturn™ Series and Multi-Room Audio™. Not only is the C-Bus® product range extensive, but it also complies with ISO9001 Accreditation.

Initially, as C-Bus® developed, there was an ongoing concern in relation to ensuring the end-user would get the most out of every CIS product. So to avoid this problem, CIS began running the CIS Installer Program and Installer Approval. If a contractor is interested in C-Bus® installation they can contact their local Clipsal® representative who will arrange for them to attend an introductory course on C-Bus®. To become an Approved Installer, the contractor must prove themselves in the field. A minimum of three installations must be completed on the same CIS product, and two of the jobs are inspected by CIS. Once the installer has satisfied the requirements of CIS they are issued with a CIS Approved Installer Card.

In conclusion, CIS are continually striving to meet the demands and requirements of their customers by offering the highest quality energy control and management products available on the market. CIS believe that by achieving this they will remain an innovative force behind the manufacturing of automated electronics.

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# Clipsal C-Bus®

## Overview

### Introduction

The Clipsal C-Bus® system is a microprocessor based wiring system to control lighting and other electrical services.

Whether ON/OFF control of a lighting circuit or analogue type control such as dimming electronic fluorescent ballasts, C-Bus® can be to control and automate virtually any type of electrical load.

To ensure fast and reliable operation, each device has its own in-built microprocessor, which can be individually programmed via 'point and click' PC based software, or via 'Learn Mode' which doesn't require a PC.

C-Bus® information is held within individual C-Bus® units rather than one central point. This ensures optimum communications speed and reliability.

Whilst a computer is unnecessary for normal C-Bus® operation, C-Bus® PC based control and management software is available and provides additional flexibility to clients requiring this type of control.

Clipsal C-Bus® is suitable for a wide range of applications, for example.

#### Commercial Lighting Control

- Fluorescent lighting control for energy cost saving in high rise buildings
- High-bay control in warehouses for energy cost saving
- Mood lighting in restaurants and retail outlets
- Flexible and integrated control of lighting and Audio Visual equipments in board rooms
- Architectural lighting control for hotel foyers, ballrooms, art galleries and museums.

#### Standalone Room Lighting Control

- Integrated automation via touch screen user interfaces for conference rooms and home theatres
- Multiple scene / mood setting.

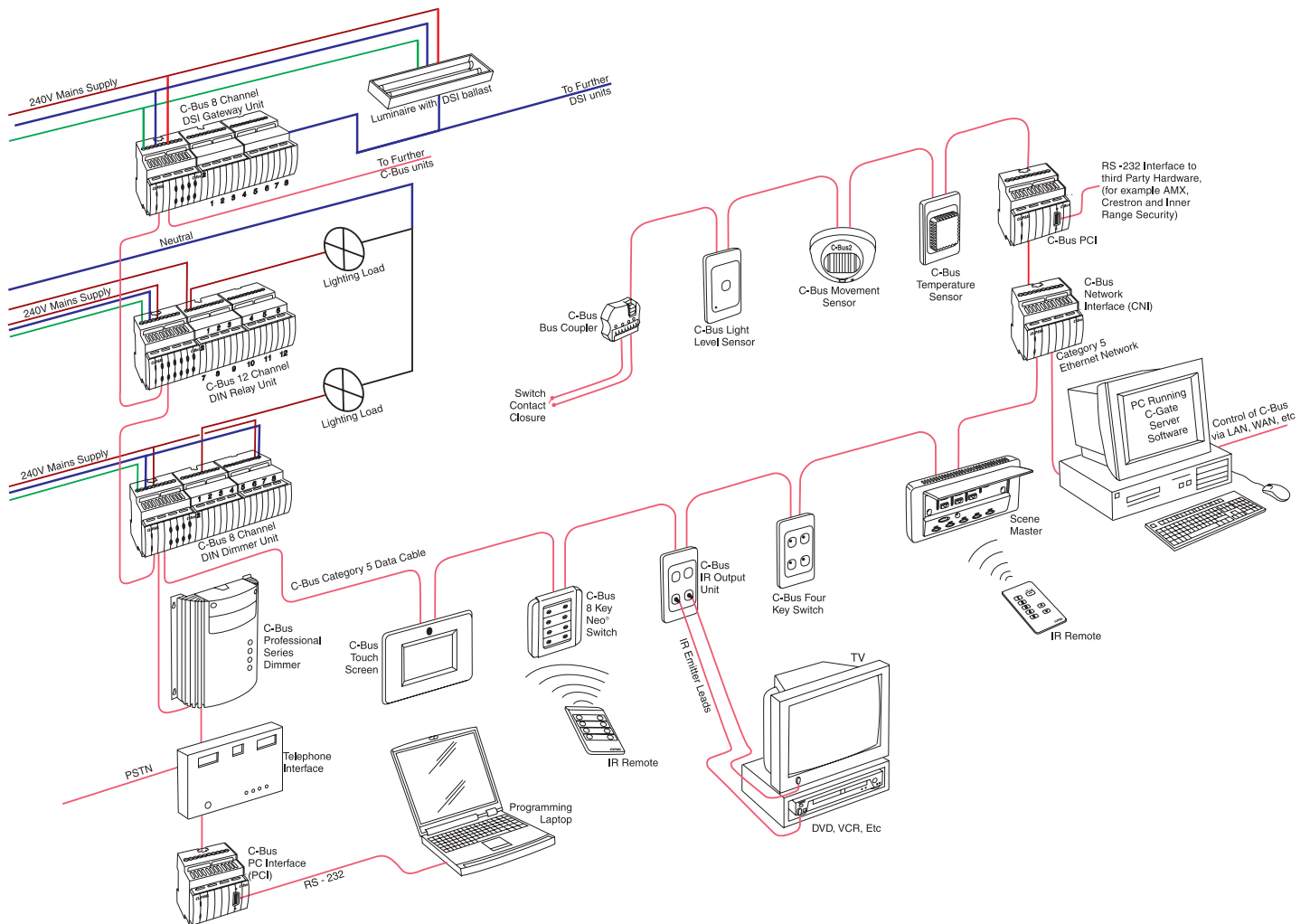
#### Residential Automation

- Home entertainment - Integrated audio visual, lighting control, and other electrical services
- Security - Integrated security, lighting and other electrical services
- Comfort – Dimming, scene setting
- Convenience – Multiple point control, central point control from touch screens, automated time based control, automated 'Goodbye' and 'Welcome Home' moods.

### C-Bus® Network Design Considerations

- Up to 1000m of C-Bus® Cat 5 UTP cable may be connected to a single C-Bus® network
- Up to 100 C-Bus® units may be connected to a single C-Bus® network
- Where more than 1 km and/or 100 standard C-Bus® units are required, two or more networks can be created and linked with C-Bus® Network Bridge and/or C-Bus® Ethernet Interface Units
- Maximum number of networks in one installation is 255 (this limitation does not apply if a C-Bus® Ethernet Interface is utilised, the system size is then limited to IP Addressing only)
- Maximum number of networks connected in series to the local network via Network Bridges is seven (i.e. using six network bridges)
- Each standard C-Bus® unit requires 18mA @ 36Vdc to operate correctly. Some C-Bus® units, e.g. 5500PC require 36mA. Some C-Bus® units, e.g. L5108D1A are self-powering and do not take current from the 36V dc C-Bus® network
- More than one C-Bus® power supply can be connected to a C-Bus® network to provide sufficient power to the C-Bus® units, the C-Bus® power supplies will share the load evenly. Maximum total power supply allowed is 2,000mA (2A)
- Any combination of power supply units is allowed as long as the total power available is 2,000mA or less
- Each C-Bus® network requires only one network burden. This network burden is software selectable on C-Bus® output units
- Each C-Bus® network requires at least one system clock-generating unit (for data synchronisation)
- C-Bus® power supply units may be connected to different phases
- Individual relay channels may be connected to different phases
- On L5508D1A units the mains supply to the units power supply and the mains supply to the output channels must be on the same phase
- The isolation between the mains supply circuitry and the 36V dc C-Bus® circuitry is greater than 3.5kV. This is achieved using double wound transformers and opto isolators. This means the C-Bus® wiring, connections and circuitry can be considered extra low voltage
- C-Bus® Cat 5 UTP cable has mains rated sheathing which means the C-Bus® cable can be taken inside electrical Distribution Boards, provided segregation requirements of local wiring standards are met.

## Typical C-Bus® Network layout



Typical C-Bus® wiring schematics are shown on pages 86-87



# C-Bus® Input Units

## Wall Switches

### Dynamic Labelling Technology™

- Available in Saturn™ and Neo® styles
- Saturn units feature an impact resistant glass fascia
- Saturn units available in square and rectangular series in white, black, cream and mid-brown
- Neo units available in square and rectangular series in Neo grey with brushed aluminium look inner surround
- Rectangular series units incorporate eight buttons for C-Bus® Group/Scene over two pages (four buttons per page)
- Square series units incorporate eight buttons for C-Bus® Group/Scene over three pages
- Page/scroll button
- Each button can be programmed with on, off, toggle, dimmer, timer, scene control and custom functions
- LCD labelling for each button
- Text, sliders and bitmaps can be defined and downloaded to the unit via a C-Bus® network.
- Dimmable blue LED on each button
- Nightlight on all buttons or just the bottom button
- 64 x 128 pixel LCD screen
- Dimmable white LED backlighting for the LCD
- Ignore first button press option
- Fallback to page 1 option
- Real time clock display
- Programmed via C-Bus® Toolkit software
- Draws 22mA from the C-Bus® network
- C-Bus® learn enabled.

### DLT™ - Saturn™ - square series

**E5084DL,GF**  
Wall switch 4 button,  
DLT™, white



**E5084DL-680**  
Wall switch 4 button,  
DLT™, black



**E5084DL-380**  
Wall switch 4 button,  
DLT™, cream



**E5084DL-780**  
Wall switch 4 button,  
DLT™, mid-brown



## DLT™ - Saturn - rectangular series

### 5085DL,GF

Wall switch 5 button,  
DLT™, white



### 5085DL-680

Wall switch 5 button,  
DLT™, black



### 5085DL-380

Wall switch 5 button,  
DLT™, cream



### 5085DL-780

Wall switch 5 button,  
DLT™, mid-brown



## DLT™ - Neo® - square series

### E5054DL

Wall switch 4 button, DLT™



## DLT™ - Neo® - rectangular series

### 5055DL

Wall switch 5 button, DLT™



## DLT™ - Accessories

### E5050MF

Wall bracket for square  
DLT™ wall switch



### E157

Wall box for square DLT™  
wall switch



# C-Bus® Input Units

## Wall Switches

### Saturn™ C-Bus® Wall Switches

- Available in square or rectangular series
- Colours available white, black, cream and mid-brown
- Impact resistant glass fascia
- 2, 4 or 6 buttons per wall switch
- Programmable as on, off, toggle, dimmer, timer, scene control and custom functions
- Selectable blue and orange LED indicator on each button configured through C-Bus® Toolkit software
- LED button indicators provide illumination and status feedback
- Nightlight feature
- Fall back level option to dim indicators at a set time after the last button press
- Mounted using standard mounting accessories (ordered separately)
- Programmed via Learn Mode or the C-Bus® Toolkit software
- Draws 22mA from the C-Bus® network
- C-Bus® Learn Enabled.

### Saturn™ - square series

**E508xNL,GF**  
Wall switch,  
square, white



**E508xNL-680**  
Wall switch,  
square, black



**E508xNL-380**  
Wall switch,  
square, cream



**E508xNL-780**  
Wall switch,  
square, mid-brown



'x' denotes number of buttons i.e. 2, 4 or 6 button



## Saturn™ - rectangular series

**508xNL-GF**  
Wall switch,  
rectangular, white



**508xNL-680**  
Wall switch,  
rectangular, black



**508xNL-380**  
Wall switch,  
rectangular, cream



**508xNL-780**  
Wall switch,  
rectangular, mid-brown



## Saturn™ - accessories

**5080LC-8**  
Pre-labelled button caps  
individually printed with  
commonly used labels  
(pack of 66)



**E5050MF**  
Wall bracket for  
square series



**E157**  
Wall box for  
square series



'x' denotes number of buttons i.e. 2, 4 or 6 button

# C-Bus® Input Units

## Wall Switches

### Saturn™ - Glass Facias - square series

#### E508xF,GF

Glass facia only, square, white



#### E508xF-30

Glass facia only, square, cream



#### E508xF-60

Glass facia only, square, black



#### E508xF-70

Glass facia only, square, mid-brown



### Saturn™ - Glass Facias - rectangular series

#### 508xF,GF

Glass facia only, rectangular, white



#### 508xF-30

Glass facia only, rectangular, cream



#### 508xF-60

Glass facia only, rectangular, black



#### 508xF-70

Glass facia only, rectangular, mid-brown



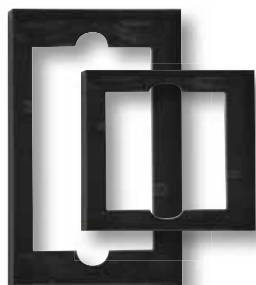
'x' denotes number of buttons i.e. 2, 4 or 6 button

'x' denotes number of buttons i.e. 2, 4 or 6 button

## Saturn™ - Mounting frames

### 5850F,BK

Mounting frame, rectangular,  
black (pack of 5)



### E5850F,BK

Mounting frame, square,  
black (pack of 5)

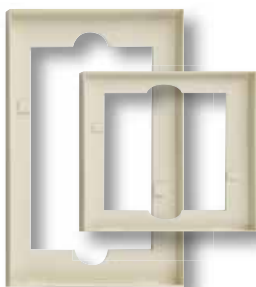


### 5850F,BR

Mounting frame, rectangular,  
brown (pack of 5)

### E5850F,BR

Mounting frame, square,  
brown (pack of 5)

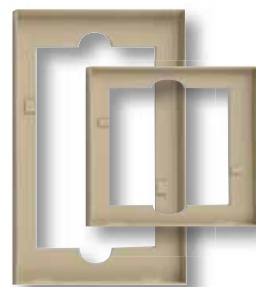


### 5850F,CM

Mounting frame, rectangular,  
cream (pack of 5)

### E5850F,CM

Mounting frame, square,  
cream (pack of 5)



### 5850F,DS

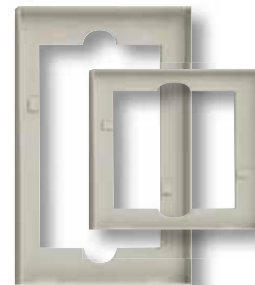
Mounting frame, rectangular,  
desert sand (pack of 5)

### E5850F,DS

Mounting frame, square,  
desert sand (pack of 5)

### 5850F,SG

Mounting frame, rectangular,  
soft grey (pack of 5)

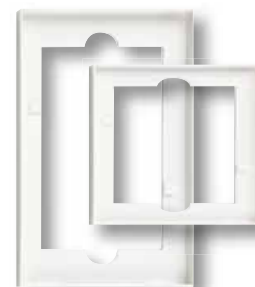


### E5850F,SG

Mounting frame, square,  
soft grey (pack of 5)

### 5850F,WE

Mounting frame, rectangular,  
white (pack of 5)



### E5850F,WE

Mounting frame, square,  
white (pack of 5)

This range of coloured mounting frame accessories can be used in conjunction with C-Bus® Saturn wall switches to match the switch edging with the clients wall colour.



# C-Bus® Input Units

## Wall Switches

### Neo® C-Bus® Wall Switches

- Architecturally designed, modular C-Bus® wall switches
- Available in two distinct styles (square and rectangular)
- Optional rocker cover with ID window for labelling of buttons (ordered separately)
- Backlight for ID windows
- 2, 4 or 8 buttons per wall switch
- Integral infrared receiving window
- Programmed via C-Bus® installation software or via the learn mode features
- Programmed as dimmers, timers, on/off toggle switches and scene switches (up to 4 scenes per unit)
- Selectable blue and orange button LEDs configured through C-Bus® Installation Software
- Available as standard in Grey/Silver, White Electric (WE), Cream (CM), Desert Sand (DS), Soft Grey (SG), Black (BK) and Brown (BR)
- Night-light feature
- Rectangular versions use standard Australian mounting brackets and wall boxes. Square version requires brackets / wall boxes as shown
- Units draw 22mA from a C-Bus® network
- C-Bus® Learn Enabled.

### Neo® - square series

**E5052NL**  
Wall switch 2 gang



**E5054NL**  
Wall switch 4 gang



**E5058NL**  
Wall switch 8 gang



See page 56-57 for Neo® colour options.

## Neo® - rectangular series

**5052NL**  
Wall switch 2 gang



**5054NL**  
Wall switch 4 gang



**5058NL**  
Wall switch 8 gang



## Neo® - accessories

**E5050MF**  
Wall bracket for square series



**E157**  
Wall box for square series



**5038TX**  
Neo® credit card size, hand-held  
infrared remote control, for  
Neo® switches



**5052NRI**  
Neo® rocker cover with  
ID window (pack of 10)



# C-Bus® Input Units

## Wall Switches

### Neo® - parts pack

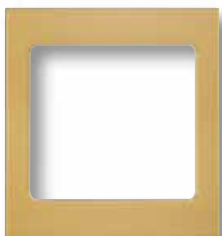
#### E5050IS

Inner surround, square series,  
(pack of 5)



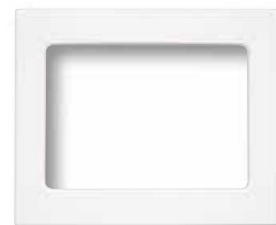
#### Available in the following colours

White  
Brushed Aluminium  
Black  
Brown  
Cream  
Dessert Sand  
Gold  
Soft Grey



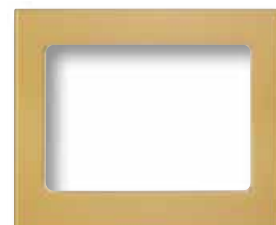
#### 5050IS

Inner surround,  
rectangular series,  
(pack of 5)



#### Available in the following colours

White  
Brushed Aluminium  
Black  
Brown  
Cream  
Dessert Sand  
Gold  
Soft Grey





**E50500S**

Outer surround, square,  
(pack of 5)



**Available in the following colours**

White  
Black  
Brown  
Cream  
Dessert Sand  
Soft Grey  
Battleship Grey

**50500S**

Outer surround,  
rectangular series,  
(pack of 5)



**Available in the following colours**

White  
Black  
Brown  
Cream  
Dessert Sand  
Soft Grey  
Battleship Grey

**5052NRP**

Rocker covers and spacers  
for E5052NL and 5052NL  
series, (pack of 5 rocker  
switch covers and  
10 spacers)



**5054NRP**

Rocker covers and spacers  
for E5054NL and 5054NL  
series, (pack of 10 rocker  
switch covers and  
10 spacers)



**5058NRP**

Rocker covers for  
E5058NL and 5058NL  
series, (pack of 20)



**Available in the following colours**

White  
Black  
Brown  
Cream  
Dessert Sand  
Soft Grey  
Battleship Grey

# C-Bus® Input Units

## Wall Switches

### Reflection™ C-Bus® Wall Switches

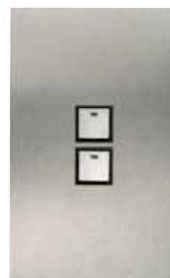
- Architectural, flat stainless steel C-Bus® wall switches
- No visible screws
- 1, 2, 3, 4, 6 or 8 buttons per wall switch
- Available in brushed stainless steel
- Each button has an associated blue LED indicator providing feedback status
- Programmed as dimmers, timers, on/off toggle switches and scene switches (up to 4 scenes per unit)
- Programmed via C-Bus® installation software or via the learn mode features
- A custom wall box is required to mount this switch, standard wall brackets and boxes can not be used
- Units draw 22mA from a C-Bus® network
- C-Bus® Learn Enabled.

### Reflection™

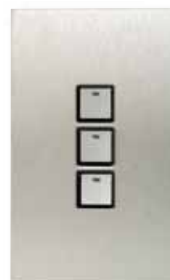
**R5061NL**  
Wall switch 1 gang



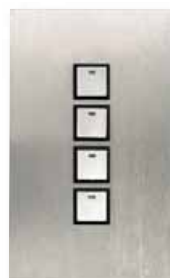
**R5062VNL**  
Wall switch 2 gang



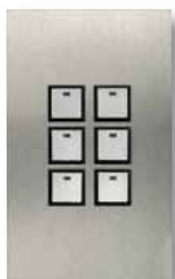
**R5063NL**  
Wall switch 3 gang



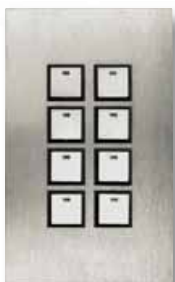
**R5064VNL**  
Wall switch 4 gang



**R5066NL**  
Wall switch, 6 gang



**R5068NL**  
Wall switch, 8 gang



## Reflection™ - accessories

**R5060WB**  
Wallbox to suit Reflection™  
range of wall switches

Important note: This wall box must be  
used to install Reflection™ Wall switches



## 2000 Series C-Bus® Wall Switches

**5031NL**  
Wall switch, 1 gang, rectangular

**5032NL**  
Wall switch, 2 gang, rectangular

**5034NL**  
Wall switch, 4 gang, rectangular

**E5031NL**  
Wall switch, 1 gang, square

**E5032NL**  
Wall switch, 2 gang, square

**E5034NL**  
Wall switch, 4 gang, square



- May be programmed as dimmers, timers and on/off toggle switches
- 1, 2 or 4 buttons per wall switch
- Each unit features a programmable status indicator
- Available in a wide range of colours (See page 57 for colour options)
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled

## Classic C2000 Series C-Bus® Wall Switches

**C5031NL**  
Wall switch, 1 gang

**C5032NL**  
Wall switch, 2 gang

**C5034NL**  
Wall switch, 4 gang



- May be programmed as dimmers, timers and on/off toggle switches
- 1, 2 or 4 buttons per wall switch
- Each unit features a programmable status indicator
- Available in a wide range of colours (See page 57 for colour options)
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled

# C-Bus® Input Units

## Wall Switches

### Slimline™ SC2000 Series C-Bus® Wall Switches

- SC5031NL** Wall switch 1 gang, orange LED
- SC5032NL** Wall switch 2 gang, orange LED
- SC5034NL** Wall switch 4 gang, orange LED
- SC5031NLB** Wall switch 1 gang, blue LED
- SC5032NLB** Wall switch 2 gang, blue LED
- SC5034NLB** Wall switch 4 gang, blue LED



SC5031NL

- May be programmed as dimmers, timers and on/off toggle switches
- 1, 2 or 4 buttons per wall switch
- Each button features a programmable LED status indicator
- Available in a wide range of colours (See page 57 for colour options)
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled.

### Eclipse® SL2000 Series C-Bus® Wall Switches

- SL5031NL** Wall switch 1 gang, orange LED
- SL5032NL** Wall switch 2 gang, orange LED
- SL5034NL** Wall switch 4 gang, orange LED
- SL5031NLB** Wall switch 1 gang, blue LED
- SL5032NLB** Wall switch 2 gang, blue LED
- SL5034NLB** Wall switch 4 gang, blue LED



SL5031NL

- May be programmed as dimmers, timers and on/off toggle switches
- 1, 2 or 4 buttons per wall switch
- Each button features a programmable LED status indicator
- Available in a wide range of colours (See page 57 for colour options)
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled.

### Metal Plate and Multi-Gang C-Bus® Wall Switches

- May be programmed as dimmers, timers and on/off toggle switches
- Each button features a programmable LED status indicator
- Available in stainless steel and brass finishes
- The button dollies are available in White, Black or Brown
- The B style metal plate range is available in up to 132 gang configuration
- Wall boxes are supplied when ordering 8 gang or higher configurations
- Contact Clipsal when ordering above 24 gang
- Each 4 gang unit array draws 18mA from a C-Bus® network
- C-Bus® Learn Enabled.

#### ‘A’ Style Deep Curved Plate

- stainless steel

- A5031NL**  
Wall switch 1 gang
- A5032NL**  
Wall switch 2 gang
- A5034NL**  
Wall switch 4 gang



A5032NL

#### ‘B’ Style Flat Plate

- stainless steel

- B5031NL**  
Wall switch 1 gang
- B5032NL**  
Wall switch 2 gang
- B5034NL**  
Wall switch 4 gang



B5032NL

## ‘A’ Style Deep Curved Plate

- brass

### **BA5031NL**

Wall switch 1 gang

### **BA5032NL**

Wall switch 2 gang

### **BA5034NL**

Wall switch 4 gang



BA5032NL

## ‘B’ Style Flat Plate

- brass

### **BB5031NL**

Wall switch 1 gang

### **BB5032NL**

Wall switch 2 gang

### **BB5034NL**

Wall switch 4 gang



BB5032NL

## ‘B’ Style Stainless Steel Flat Plate

### **5008S164/3L**

Wall switch 8 gang

### **5012S164/4L**

Wall switch 12 gang

### **5016S164/6L**

Wall switch 16 gang - horizontal

### **5016S162/3L**

Wall switch 16 gang - vertical

### **5020S164/7L**

Wall switch 20 gang

### **5024S164/8L**

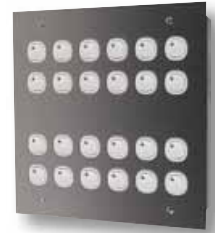
Wall switch 24 gang - horizontal

### **5024S162/4L**

Wall switch 24 gang - vertical

### **5024S163/3L**

Wall switch 24 gang - vertical



5024S162/4L

## ‘B’ Style Brass Flat Plate

### **5008B164/3L**

Wall switch 8 gang

### **5012B164/4L**

Wall switch 12 gang

### **5016B164/6L**

Wall switch 16 gang - horizontal

### **5016B162/3L**

Wall switch 16 gang - vertical

### **5020B164/7L**

Wall switch 20 gang

### **5024B164/8L**

Wall switch 24 gang - horizontal

### **5024B162/4L**

Wall switch 24 gang - vertical

### **5024B163/3L**

Wall switch 24 gang - vertical



5024B1162/4L

# C-Bus® Input Units

## General Input Units

### General Analogue/Digital Input Unit



#### 5504GI

General input unit, 4 channel

- Four channel general input unit, DIN rail mounted
- 8M DIN Modules Wide
- Dimensions 144mm x 85mm x 65mm
- Used to interface a C-Bus® system to third party products such as light level sensors, current sensors, temperature sensors, CO<sub>2</sub> detectors, differential sensors, pressure sensors, flow rate sensors, moisture probes etc
- Designed to either trigger the state of a C-Bus® group address as a function of input level or broadcast a message on the C-Bus® network, representing the input level
- Maximum of 10 units on a single C-Bus® network
- Can be used to measure analogue values (0-1V, 0-5V, 0-10V, 0-20V, 0-20mA, 4-20mA, 500 Ohm, 1k Ohm, 3k Ohm and 10k Ohm thermistor inputs)
- Requires a 24V dc connection (power pack included)
- Units draw 18mA from a C-Bus® network.

### Bus Coupler Input Units



#### 5104BCL

Bus coupler input unit, 4 channel



#### 5102BCLEDL

Bus coupler input unit, 2 channel, with remote LED facility

- 5104BCL used to interface up to 4 standard voltage free mechanical switches, including latching and toggle switches to C-Bus®
- 5102BCLEDL used to interface up to 2 standard voltage free mechanical switches, including latching and toggle switches to C-Bus®, incorporates remote LED facility
- Dimensions 55mm x 49mm x 18mm
- The unit is designed to fit into a standard wall box
- Each unit features a programmable status indicator
- The maximum distance between the unit and an external voltage free switch is limited to 1 metre (use L5504AUX if longer distance required)
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled.



## DIN Rail Mounted Auxiliary Input Unit



### L5504AUX

Auxiliary input module, 4 channel

- Four channel auxiliary input module, DIN rail mounted
- 4M DIN Modules Wide
- Dimensions 72mm x 85mm x 65mm
- Permits voltage free switches to be connected to C-Bus®, such as Clipsal 30 Series mechanisms, limit switches and weatherproof switches
- Each unit features a programmable status indicator
- The unit may be programmed in the same way as a wall switch, to achieve the same functions such as timer, dimmer or toggle switches
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled.

## Passive infrared Motion Detectors



### 5750WPL

Occupancy sensor, infrared, IP66, outdoor

- PIR motion sensor suitable for outdoor use
- The unit has a field of view of 110 degrees and a detection range which extends 18 metres
- The unit features a light threshold adjustment on the unit
- The time delay is programmable in the range 1 second to 18 hours
- Features a sunset switch program
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled.

### 5751L

Occupancy sensor, infra-red, indoor, corner mount



- PIR motion sensor suitable for indoor use
- The unit has a coverage range of 6m x 6m and a field of view of 90 degrees
- The unit features a light threshold adjustment on the unit
- The time delay is programmable in the range 1 second to 18 hours
- Features a Sunset Switch program
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled.

# C-Bus® Input Units

## General Input Units

### Passive Infrared Motion Detectors cont.

#### 5753L

Occupancy sensor, infra-red, indoor, flush mount, 360 degree



- 360 degree, flush, ceiling mount PIR motion sensor
- suitable for indoor use
- The unit has a coverage range of 6m x 6m and a field of view of 90 degrees
- The unit features a light threshold adjustment on the unit
- The time delay is programmable in the range 1 second to 18 hours
- Features a Sunset Switch program
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled.

#### 5753PEIRL

Multisensor, combined occupancy sensor, light level sensor and IR receiver



- Flush mount design with 360 degree detection pattern
- Capable of controlling up to 8 C-Bus® Scenes or 8 C-Bus® Group Addresses
- Supports the 'Corridor Linking' feature for commercial building applications
- Three LEDs indicate a range of actions from movement, to the receiving of IR commands and the device's status
- Light and PIR sensitivity are set via adjustment screws located on the sensor unit
- Dual element detectors minimise false triggering
- Refer to 5753PEIRL Installation Instruction for location and mounting details
- An LED status indicator on the unit is used to report the current state of the load controlling device
- Unit draws 18mA from a C-Bus® network
- C-Bus® Learn Enabled.

### Light Level Sensor

#### 5031PE

Light level sensor, 40 - 1600lux

#### E5031PE

Light level sensor, 40 - 1600lux, British style



- Used to measure and regulate lighting in the range of 40 - 1600lux
- Programmable target light level as well as the margin on installation
- Each unit features a programmable status indicator
- Can be used to achieve bank switching or continuous dimming
- Units draw 18mA from a C-Bus® network.

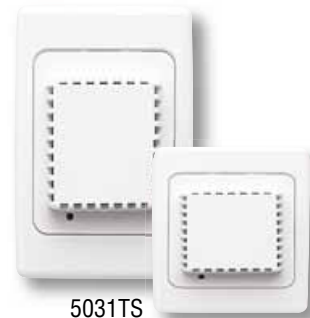
### Temperature Sensor

#### 5031TS

Temperature sensor, 0 - 50 degrees centigrade

#### E5031TS

Temperature sensor, 0 - 50 degrees centigrade, British style



- Used to measure and regulate either heating or cooling in the range 0 - 50 degrees centigrade
- Programmable target temperature and margin on installation
- Programmable set back temperature for when the room is unoccupied
- Units draw 18mA from a C-Bus® network.

## Single Zone Thermostat

### 5070THBR

C-Bus® thermostat, programmable, single zone with 5 relays (relays for HVAC plant control only, not accessible via C-Bus®)



### 5070THB

C-Bus® thermostat, programmable, single zone, no on board HVAC plant control relays

- Single zone C-Bus® thermostat
- Wall Mounted
- Dimensions 92mm x 127mm x 24mm
- Support for control of HVAC units via C-Bus® or the internal HVAC relays ('RWG' control)
- Manually adjustable temperature set point and mode of operation (heating, cooling or ventilation)
- The unit includes fan speed control and a 'Setback' or 'Economy' Mode
- Easy to use operator interface includes an integral LCD to display the current temperature and mode of operation
- Draws 40mA from a C-Bus® network.

## 4 Zone Thermostat with programmable time scheduling

### 5070THPR

C-Bus® thermostat, programmable, 4 zone, with 5 Relays (relays for HVAC plant control only, not accessible via C-Bus®)



### 5070THP

C-Bus® thermostat, programmable, 4 zone, no on board HVAC plant control relays

- Four zone (plus the common zone) programmable C-Bus® thermostat
- Wall mounted
- Dimensions 105mm x 149mm x 24mm
- Support for control of HVAC units via C-Bus® or directly using on board HVAC relays (RWG control)
- Manually adjustable temperature set point, mode of operation (heating, cooling or ventilation) and time schedules
- On board 7 day HVAC time scheduling (user programmable), manual fan speed control, and setback mode
- Easy to use interface, comprising of an LCD, manual control buttons and a rotating dial with an integral press switch
- Draws 40mA from a C-Bus® network.

# C-Bus® Input Units

## Wall Switches

### Infra-red Receivers

- Wall mounted IR receiver incorporating 4 stations of IR receivers
- Available with or without C-Bus® buttons
- May be programmed to achieve functions such as a dimmer, timer or toggle switch
- Units draw 18mA from a C-Bus® network
- C-Bus® Learn Enabled.

### 2000 Series

**5031NIRL**  
4 channel infra-red receiver,  
rectangle

**E5031NIRL**  
4 channel infra-red receiver,  
square, British style



**5034NIRL**  
4 channel infra-red receiver with  
4 keys

**E5034NIRL**  
4 channel infra-red receiver with  
4 keys, square, British style



### Classic C2000 Series

**C5031NIRL**  
4 channel infra-red receiver



**C5034NIRL**  
4 channel infra-red receiver  
with 4 buttons



### Slimline™ SC2000 Series

**SC5031NIRL**  
4 channel infra-red receiver



**SC5034NIRL**  
4 channel infra-red receiver  
with 4 buttons



## Eclipse® SL2000 Series

### **SL5031NIRL**

4 channel infra-red receiver



### **SL5034NIRL**

4 channel infra-red receiver  
with 4 buttons



## C-Bus® Hand-held Infra-red Transmitters

- Works in conjunction with the infra-red receivers on page 24
- 4 channel and 12 channel units available
- The 4 channel device controls bank A of the receivers
- The 12 channel device controls banks A, B and C of the infra-red receivers
- Range up to 15 metres (line of sight).

### **5034TX**

4 button hand-held  
infra-red transmitter



### **5034TX12**

12 button hand-held  
infra-red transmitter



# C-Bus® Input Units

## Remote Control Units

### Universal Infra-red Remote Control Unit

- Universal, hand held, infrared remote control unit for control of electronic devices equipped with an infrared (IR) remote
- Control of up to 16 devices including C-Bus®, DVDs, TVs, satellite receivers, VCRs and CDs
- Large touch screen display
- Blue LED backlighting
- LED indicators provide information and feedback on:
  - o Status of the beep feature (audible button press confirmation)
  - o 'Battery low' warning
  - o Confirmation of a successfully transmitted infrared code
  - o Error warning
  - o Touch screen page number.
- User programmable buttons for each device include 7 rubber buttons and 48 touch screen buttons
- Quick Control buttons
- Sleep button
- Page / date button
- Pre-programmed manufacturer codes for many models
- Incorporates imbedded C-Bus® IR codes for the C-Bus® 5038TX and 5035TX IR remote controls
- Easy to configure with new IR codes using the "learning eye"
- Macro function (up to 60 commands per macro)
- Learning IR codes from existing remote controls.



#### **5030URC**

Universal Infra-red Remote Control Unit, with LCD touch screen



## C-Bus® Hand-held Infra-red Transmitters

- Designed for use with C-Bus® Neo Wall Switches, C-Bus® Multi Sensor and the 503xNIRL/E503xNIRL series wall switches
- 4 and 8 button version available
- Range of up to 15 metres (line of sight)
- Features IR Bank selection switch with each group of four buttons assigned to either bank A/B bank C/D.
- The bank selection is changed by removing the back cover.



**5084TX**  
4 button C-Bus® Infrared  
Remote Control with holder



**5088TX**  
8 button C-Bus® Infrared  
Remote Control  
with holder



**5080TXC**  
C-Bus® Remote  
Control Holder (spare)

# C-Bus® Input Units

## Scene Controllers

### Scene Controllers, Standard Range

- Allow up to 4 scenes or moods to be set from one switch
- Each time a button is pressed the scene is issued
- Up to 9 turn on/off or 6 ramp commands may be programmed on each button
- Units draw 18mA from a C-Bus® network.

### 2000 Series

**5034NS**  
4 channel scene controller, rectangle

**E5034NS**  
4 channel scene controller, square



### Classic C2000 Series

**C5034NS**  
4 channel scene controller



### Slimline™ SC2000 Series

**SC5034NS**  
4 channel scene controller



### Eclipse® SL2000 Series

**SL5034NS**  
4 channel scene controller



## Scene Master® Scene Controllers

- Scene Controller with IR capability features 5 preset buttons
- Dimensions 175mm x 88mm x 23.3mm
- Additional master off button
- Scenes and Master OFF functions accessible from the unit or IR remote control (supplied)
- Facility to set up to 5 scenes on each unit and up to 9 Group Addresses may be associated with each scene
- The unit may be programmed with the C-Bus® application software
- Scene may be set from the unit itself via learn enabled features
- Units draw 32mA from a C-Bus® network
- C-Bus® Learn Enabled.



**5035NIRSL,WE**  
5 key scene controller with  
IR, white



**5035NIRSLTR,WE**  
5 key scene controller with IR, white with  
smoked transparent cover



**5035NIRSLTR,GB**  
5 key scene controller with IR, grey and silver  
with smoked transparent cover



**5035TX**  
Remote control to suit Scene  
Master (spare)

# C-Bus® Input Units

## Touch Screens

### Colour Touch Screens

- Available in Neo®, flat stainless steel and Saturn™ Glass style surrounds
- 6.4" (diagonal), VGA, 640 x 480 pixels, colour LCD screen
- Displays pages of graphical items, such as buttons, sliders and images that perform C-Bus® related functions when pressed
- Includes a real time clock for automatic scheduling of events based on the time of day, week, month or year
- Controllable via an Infra-red hand held remote control unit
- Fully customised to suit user requirements via the included Windows™ compatible configuration software
- The software includes a logic engine module that allows the installer to program logic based (if-then-else) control into the touch screen configuration
- Connects directly to a C-Bus® network (no external C-Bus® PC Interface required)
- Control and monitor devices connected to C-Bus®, ethernet and RS-232 (custom ethernet and RS-232 support via the included logic programming language)
- Unit programmable via an ethernet connection
- Client / server plugin for Windows™ Media Player
- Animated buttons with more than 256 animation frames supported
- Fully customisable graphics including bar graphs, sliders, percentage indicators, images, gauges and clocks with any border and background style
- Supports web page embedding
- Supports IP camera inputs
- Supports project theme templates
- Audio WAV file support
- Scene control
- Event Scheduling support
- Irrigation control
- Password access control
- Dimensions: 248mm x 175mm x 60mm.

### Colour Touch Screen

- Saturn™ Series

#### 5080CTC,GF

Colour touch screen, 6.4 inch colour, white glass facia, less wall box, less power supply



#### 5080CTC-6

Colour touch screen, 6.4 inch colour, black glass facia, less wall box, less power supply



#### 5080CTC-3

Colour touch screen, 6.4 inch colour, cream glass facia, less wall box, less power supply



#### 5080CTC-7

Colour touch screen, 6.4 inch colour, mid-brown glass facia, less wall box, less power supply



## Colour Touch Screen

- Neo® Series

### 5050CTC

Colour touch screen,  
6.4 inch colour, neo style  
facia, less wall box, less  
power supply



## Colour Touch Screen

- Metal Plate Series

### BS5000CTC

'B' style metal plate  
colour touch screen,  
6.4 inch colour, stainless  
steel style facia, less wall  
box, less power supply



## Colour Touch Screen

- Accessories

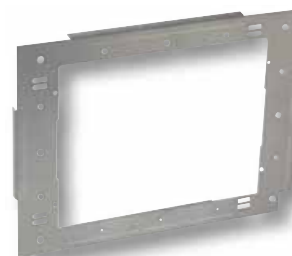
### 5000CTCWB

Wall box for 6.4 inch  
colour touch screen



### 5000CTCNA

Nail bracket for 6.4 inch  
colour touch screen



### 5000CTRM

Gyproc™ bracket for 6.4 inch  
colour touch screen



### 5000CTCPS

Power supply for 6.4 inch  
colour touch screen



# C-Bus® Input Units

## C-Bus® Touch Screens

### Monochrome Touch Screens

- Wall mount, touch sensitive LCD screen
- Dimensions 152mm x 115mm x 38mm
- Displays 'pages' of graphical items, such as buttons, sliders and images that can perform C-Bus® related functions when pressed
- Includes a real time clock for automatic scheduling of events
- Allows control via the infra-red hand held remote control unit supplied
- The unit is programmed via Windows™ compatible touch screen configuration software
- The unit may be programmed with the C-Bus® application software
- Scene may be set from the unit itself via learn enabled features
- Connects to a C-Bus® network and is powered from C-Bus®.

### Slimline™ SC2000 Series

**SC5000CT**  
Touch screen, monochrome



### 'B' Style Flat Plate

- stainless steel

**BS5000CT**  
Touch screen, monochrome



### 'B' Style Flat Plate

- brass

**BB5000CT**  
Touch screen, monochrome



### Monochrome Touch Screen

- with desktop stand

**5000CTD,GB**  
Touch screen, monochrome, with desktop stand and 5 metre lead, grey with stainless steel facia





## Monochrome Touch Screen

- wall box

### **5000CTWB**

Wall box for  
C-Bus® monochrome  
touch screen



## Neo® Series

- accessories

### **5050CTS**

Surround only, Neo® style,  
for use with monochrome  
touch screen



# C-Bus® Output Units

## Dimmer Units

### High Power, Multi Channel Professional Series Dimmers

- Rugged, high quality dimmer units specifically designed for architectural dimming applications
- Dimensions 533mm x 486mm x 163mm
- Leading edge dimmers suitable for incandescent and low voltage lighting
- Feature opto-controlled electronic switching devices
- Chokes provide high rise time along with excellent high frequency noise suppression and low acoustic noise
- Feature “Advanced Phase Control” (APC) switching technique giving greater efficiency resulting in cooler operation and ultimately improved reliability
- Front panel buttons, channel switches, LED indicators and seven-segment display enable the user to monitor and select the built-in functions
- Control from either a DMX-512 source or from C-Bus®
- Units draw 22mA from a C-Bus® Network
- C-Bus® Learn Enabled.

#### L5112D10B2

12 channel dimmer, 10A per channel, 250V ac, MCCB protection, 40 - 80Hz, APC technology



#### L5112D12B2

12 channel dimmer, 12A per channel, 250V ac, MCCB protection, 40 - 80Hz, APC technology



#### L5112D16B2

12 channel dimmer, 16A per channel, 250V ac, MCCB protection, 40 - 80Hz, APC technology



#### L5112D20B2

12 channel dimmer, 20A per channel, 250V ac, MCCB protection, 40 - 80Hz, APC technology



#### L5112D10B2S

12 channel dimmer, 10A per channel, 250V ac, MCCB protection, 40 - 80Hz, APC technology with socket outlets



## High Power, Multi Channel Professional Series Dimmers

- accessories

### 5150SMB

Mounting bracket - shallow



### 5150DMB

Mounting bracket - deep



### 5150DMX

DMX connector kit



## Standard Dimmer Range



### 5104D750

4 channel dimmer 250V ac,  
3A per channel, 12A total

- Suitable for incandescent and low voltage dimming
- Dimensions 248mm x 150mm x 55mm
- Features 4 channels of 3A output channels
- A maximum of 100 units may be connected to any C-Bus<sup>®</sup> network
- Do not source current to the network
- Draws 18mA from the C-Bus<sup>®</sup> network when mains is not connected.

# C-Bus® Output Units

## Dimmer Units

### Professional Series Dimmers

- Leading edge dimmers suitable for incandescent and low voltage lighting
- Dimensions 240mm x 220mm x 75mm
- Feature an emergency lighting output in case of loss of mains power to the unit
- Incorporate a software selectable network burden and C-Bus® system clock
- Dimmers incorporate a 60mA power supply
- Up to 30 units may be connected to any C-Bus® network
- C-Bus® Learn Enabled.



#### L5104D5

4 channel dimmer 250V ac, 5A per channel, 20A total, 60mA inbuilt C-Bus® power supply



#### L5102D10

2 channel dimmer 250V ac, 10A per channel, 20A total, 60mA inbuilt C-Bus® power supply



#### L5101D20

1 channel dimmer 250V ac, 20A per channel, 20A total, 60mA inbuilt C-Bus® power supply

## DIN Rail Mounted Universal Dimmer Range



### L5504D2U

4 channel C-Bus® universal dimmer 250V ac, 2.5A per channel, inbuilt 200mA C-Bus® power supply

- 4 channel universal dimmer, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- Features 4 channels of 2.5A rating
- Suitable for use with leading edge or trailing edge compatible low voltage transformers
- Suitable for low voltage electronic transformers, incandescent lamps and low voltage lamps with iron core transformers
- Features automatic load sensing
- Features a software selectable network burden and C-Bus® system clock
- A maximum of 10 units may be connected to a C-Bus® network
- Features an inbuilt 200mA C-Bus® power supply
- C-Bus® Learn Enabled.



### L5504D2UP

4 Channel C-Bus® universal dimmer 250V ac, 2.5A per channel, no inbuilt C-Bus® power supply

- 4 channel universal dimmer, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- Features 4 channels of 2.5A rating
- Suitable for use with leading edge or trailing edge compatible low voltage transformers
- Suitable for low voltage electronic transformers, incandescent lamps and low voltage lamps with iron core transformers
- Features automatic load sensing
- Features a software selectable network burden and C-Bus® system clock
- A maximum of 100 units may be connected to a C-Bus® network
- Does not source current to the network
- Draws 18mA from C-Bus® when mains is not connected
- C-Bus® Learn Enabled.

# C-Bus® Output Units

## Dimmer Units

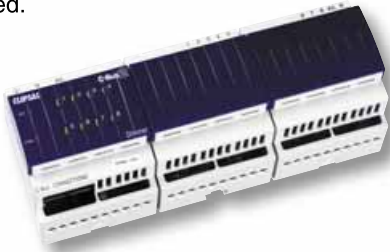
### DIN Rail Mounted Dimmer Range



#### L5508D1A

8 channel dimmer 250V ac, 1A per channel, inbuilt 200mA C-Bus® power supply

- 8 channel dimmer, DIN rail mounted
- 12M DIN Modules Wide
- Dimensions 215mm x 85mm x 65mm
- Features 8 channels of 1A output, suitable for incandescent and low voltage lighting
- Features a software selectable network burden and C-Bus® system clock
- A maximum of 10 units may be connected to any C-Bus® network
- Features an inbuilt 200mA C-Bus® power supply
- C-Bus® Learn Enabled.



#### L5508D1AP

8 channel dimmer 250V ac, 1A per channel, no inbuilt C-Bus® power supply

- 8 channel dimmer, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- Features 8 channels of 1A output, suitable for incandescent and low voltage lighting
- Features a software selectable network burden and C-Bus® system clock
- A maximum of 100 units may be connected to any C-Bus® network
- Does not source current to the network
- Draws 18mA from the C-Bus® when mains is not connected
- C-Bus® Learn Enabled.



#### L5504D2A

4 channel dimmer 250V ac, 2A per channel, inbuilt 200mA C-Bus® power supply

- 4 channel dimmer, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- Features 4 channels of 2A output, suitable for incandescent and low voltage lighting
- Features a software selectable network burden and C-Bus® system clock
- A maximum of 10 units may be connected to any C-Bus® network
- Features a 200mA C-Bus® power supply
- C-Bus® Learn Enabled.



#### L5504D2AP

4 channel dimmer 250V ac, 2A per channel, no inbuilt C-Bus® power supply

- 4 channel dimmer, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- Features 4 channels of 2A output, suitable for incandescent and low voltage lighting
- Features a software selectable network burden and C-Bus® system clock
- A maximum of 100 units may be connected to any C-Bus® network
- Does not source current to the network
- Draws 18mA from the C-Bus® when mains is not connected
- C-Bus® Learn Enabled.

## C-Bus® DSI Gateway Range



### L5508DSI

8 channel dimmer for DSI electronic ballasts 250V ac, inbuilt 200mA C-Bus® power supply

- 8 channel dimmer for DSI ballasts, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- Provides C-Bus® control of electronic DSI digital ballasts
- The module controls up to 100 DSI ballasts per channel
- Up to 10 units may be connected to any C-Bus® network
- Used in conjunction with electronic DSI ballasts
- The Dimmer features a 200mA C-Bus® power supply
- C-Bus® Learn Enabled.



### L5508DSIP

8 channel dimmer for DSI electronic ballasts 250V ac, no inbuilt C-Bus® power supply

- 8 channel dimmer for DSI ballasts, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- Provides C-Bus® control of electronic DSI digital ballasts
- The module controls up to 100 DSI ballasts per channel
- Up to 100 units may be connected to any C-Bus® network
- Used in conjunction with electronic DSI ballasts
- Units draw 18mA from the C-Bus® network when mains is not connected
- C-Bus Learn Enabled.

## 0-10V Analogue Output Unit



### L5504AMP

4 channel analogue output, 0-10V

- Analogue output module, DIN rail mounted
- 4M DIN modules wide
- Requires a 240V ac connection
- Dimensions 72mm x 85mm x 65mm
- Can either source or sink current and is used to drive most types of 0-10V electronic dimmable ballasts
- The unit provides 4 independent output channels
- Powered from C-Bus® and requires 18mA at 15 - 36Vdc for correct operation
- The polarity of the signal may be selected so that 0V corresponds to maximum or minimum brightness
- Units draw 18mA from the C-Bus® when mains is not connected
- C-Bus® Learn Enabled.

# C-Bus® Output Units

## Infra-red Output Units

### Infra-red Output Units

- Transmits IR codes to third party devices
- Capable of broadcasting IR messages through two IR output channels (consist of 3.5mm mini audio mono sockets)
- Single or dual head emitter leads (ordered separately) should be connected to the output jacks
- Programmed via the High Speed Programming Cable (part number 5100HSC, ordered separately, see page 41)
- The installer has the facility to modify the stored codes using Windows™ based application software
- Stores a library of commonly used IR codes
- The Infrared Controller is based on the standard range of Clipsal 4-gang wall switches
- The standard colours are White Electric, Soft Grey, Desert Sand, Cream, Brown and Black
- Units draw 32mA from the C-Bus® network.

#### **5034NIRT**

2 channel infra-red transmitter unit, 2000 Series wall plate

#### **E5034NIRT**

2 channel infra-red transmitter unit, 2000 Series wall plate, British style



#### **C5034NIRT**

2 channel infra-red transmitter unit, Classic C2000 Series wall plate



#### **SC5034NIRT**

2 channel infra-red transmitter unit, Slimline SC2000 Series wall plate



#### **SL5034NIRT**

2 channel infra-red transmitter unit, Eclipse SL2000 Series wall plate





## Infra-red Output Units

- accessories



### 5100HSC

High speed programming cable  
for C-Bus® 2 channel infra-red  
transmitter unit.



### 5100RP

Infra-red code learning unit

Infra-red code learning unit, complete with Windows™  
based software. Required for learning third party infra-red  
codes not included in the code library shipped with the  
infra-red transmitter unit software.

# C-Bus® Output Units

## Relay Units

### 10A Relay Units



#### L5512RVF

12 channel relay 250V ac, 10A inductive load per channel, inbuilt 200mA C-Bus® power supply

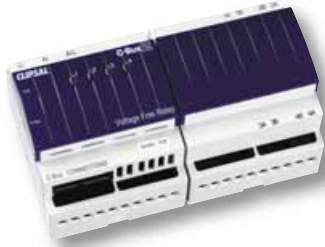
- 12 channel relay module, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- Featuring 12 channels of voltage free relay switching
- Rated at 10A incandescent or 10A fluorescent load per channel
- Incorporates a software selectable network burden and C-Bus® system clock
- A maximum of 10 units may be connected to any C-Bus® network
- Incorporates an inbuilt 200mA C-Bus® power supply
- C-Bus® Learn Enabled.



#### L5512RVFP

12 channel relay 250V ac, 10A inductive load per channel, no inbuilt C-Bus® power supply

- 12 channel relay module, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- Featuring 12 channels of voltage free relay switching
- Rated at 10A incandescent or 10A fluorescent load per channel
- Incorporates a software selectable network burden and C-Bus® system clock
- A maximum of 100 units may be connected to any C-Bus® network
- These units draw 18mA from C-Bus® network when mains is not connected
- C-Bus® Learn Enabled.



**L5504RVF**

4 channel relay 250V ac, 10A inductive load per channel, inbuilt 200mA C-Bus® power supply

- 4 channel relay module, DIN rail mounted
- 8M DIN modules wide
- Dimensions 144mm x 85mm x 65mm
- Featuring 4 channels of voltage free relay switching
- Rated at 10A incandescent or 10A fluorescent load per channel
- Incorporates a software selectable network burden and C-Bus® system clock
- A maximum of 10 units may be connected to any C-Bus® network
- Incorporates an inbuilt 200mA C-Bus® power supply
- C-Bus® Learn Enabled.



**L5504RVFP**

4 channel relay 250V ac, 10A inductive load per channel, no inbuilt C-Bus® power supply

- 4 channel relay module, DIN rail mounted
- 8M DIN modules wide
- Dimensions 144mm x 85mm x 65mm
- Featuring 4 channels of voltage free relay switching
- Rated at 10A incandescent or 10A fluorescent load per channel
- Incorporates a software selectable network burden and C-Bus® system clock
- A maximum of 100 units may be connected to any C-Bus® network
- These units draw 18mA from C-Bus® when mains is not connected
- C-Bus® Learn Enabled.

# C-Bus® Output Units

## Relay Units

### Changeover Relay Units



#### L5504RVFCP

4 channel changeover relay, 250V ac, no inbuilt C-Bus® power supply, learn enabled



#### L5504RVFC

4 channel changeover relay, 250V ac, learn enabled, inbuilt 200mA C-Bus® power supply, learn enabled

- 4 channel changeover relay modules with interlock features, DIN rail mounted
- 8M DIN modules wide
- Dimensions 144mm x 85mm x 65mm
- Used for control of air conditioning systems (on/off, low, medium and high) and shutter or blind control (up/down)
- The unit can be simply wired to achieve electrical interlocking, for use where outputs are all mutually exclusive
- Relays rated at 10A resistive, 5A incandescent/inductive, 1A fluorescent
- Incorporates a software selectable network burden and C-Bus® system clock
- A maximum of 100 units may be connected to any C-Bus® network
- These units draw 18mA from C-Bus® when mains is not connected
- C-Bus® Learn Enabled.

### Motorised Blinds/Curtains/Shutter Relay Unit



#### L5501RBCP

C-Bus® Motorised Blinds/Curtains/Shutter Relay, 250 V ac, no C-Bus® Power Supply

- Single channel relay unit for the control of motorised blinds, curtains or shutters via C-Bus®, DIN rail mounted
- 2M DIN modules wide
- Dimensions 36 x 85mm x 65mm
- Allows up/down and stop control
- A maximum of 100 units may be connected to a C-Bus® network
- Units draw 18mA from C-Bus® when mains is not connected
- C-Bus® Learn Enabled.

## 20A Relay Units



### L5504RVF20

4 channel relay, 250V ac, 20A inductive load per channel, inbuilt 200mA C-Bus® power supply

- 4 channel 20A relay module, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- 4 channels of voltage free relay switching
- Rated at 20A incandescent, 20A HID or 20A fluorescent load per channel
- Relays features magnetic latching
- Built in mechanical level for manual changeover of relay state
- Incorporates a software selectable network burden and C-Bus® system clock
- A maximum of 10 units may be connected to any C-Bus® network
- Incorporates an inbuilt 200mA C-Bus® power supply
- C-Bus® Learn Enabled.



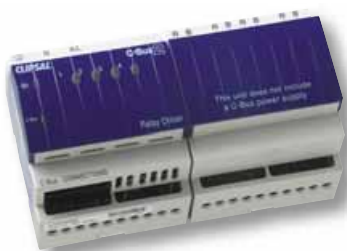
### L5504RVF20P

4 channel relay, 250V ac, 20A inductive load per channel, no inbuilt C-Bus® power supply

- 4 channel 20A relay module, DIN rail mounted
- 12M DIN modules wide
- Dimensions 215mm x 85mm x 65mm
- 4 channels of voltage free relay switching
- Rated at 20A incandescent, 20A HID or 20A fluorescent load per channel
- Relays feature magnetic latching
- Built in mechanical level for manual changeover of relay state
- Incorporates a software selectable network burden and C-Bus® system clock
- A maximum of 100 units may be connected to any C-Bus® network
- Units draw 18mA from the C-Bus® when mains is not connected
- C-Bus® Learn Enabled.

# C-Bus® Output Units

## Relay Units



### L5504RDP

4 channel relay driver 250V ac, no inbuilt C-Bus® power supply. Note: output control relays must be purchased separately

- 4 channel relay driver, DIN rail mounted
- 8M DIN modules wide
- Dimensions 144mm x 85mm x 65mm
- Features 4 channels capable of driving the coils of up to four external 20A relays (one per channel)
- Does not directly control a mains output load and must be used with Cat Numbers 5000RL20 or 5002RL20
- Incorporates a software selectable network burden and C-Bus® system clock
- A maximum of 100 units may be connected to any C-Bus® network
- Units draw 18mA from the C-Bus® when mains is not connected.



### 5000RL20

Single relay 250V ac, 20A inductive load. Note: Must be used in conjunction with Catalogue Numbers L5504RD or L5504RDP

- Heavy duty 20A mechanically latched relay, DIN rail mounted
- Approx. 1.5M DIN modules wide
- Dimensions 96mm x 24.5mm x 60mm
- Suitable for controlling up to 20A of incandescent, HID or fluorescent loads
- Rated at 20A incandescent, 20A HID or 20A fluorescent load per channel
- Relays feature mechanical latching
- Built in mechanical level for manual changeover of relay state
- Incorporates an auxiliary output contact and a mechanical on/off override for manual operation
- Must be used in conjunction with the Cat Numbers L5504RD or L5504RDP relay driver products.



#### 5002RL20

Dual relay 250V ac, 20A inductive load per relay.  
Note: Must be used in conjunction with Cat Numbers L5504RD or L5504RDP (see page 36)

- 2 x 20A magnetically latching relay module, DIN rail mounted
- 4M DIN modules wide
- Dimensions 72mm x 85mm x 65mm
- Must be used in conjunction with the C-Bus® L5504RD or L5504RDP relay driver products
- Compatible with 20A incandescent, inductive or fluorescent loads
- Must be used in conjunction with the Cat Numbers L5504RD or L5504RDP relay driver products
- Incorporates mechanical overrides accessible by the user
- The mechanical lever is labelled with ON and OFF to indicate relay status.

## Standard Relay Units



#### 5101R

1 channel relay 250V ac  
10A inductive load

- Single C-Bus® relay unit
- Dimensions 198mm x 42mm x 39mm
- Featuring 1 channel of 240V ac switching
- Suitable for incandescent, inductive and fluorescent switching up to a maximum load of 10A
- A maximum of 100 units may be connected to any C-Bus® network
- These relays do not draw any current from C-Bus® network when mains power is connected.

#### 5102RVF

2 channel voltage free relay 250 V ac,  
10A inductive per channel



- 2 channel C-Bus® relay unit
- Dimensions 198mm x 42mm x 39mm
- Featuring 2 channels of 240V ac switching
- Suitable for incandescent, inductive and fluorescent switching up to a maximum load of 10A per channel
- A maximum of 100 units may be connected to any C-Bus® network
- These relays do not draw any current from C-Bus® network when mains power is connected.

# C-Bus® System Units and Accessories

## Pascal Automation Controller

### 5500PACA C-Bus® Pascal Automation Controller



- Provides extended conditional and real-time event programming for C-Bus®
- Programs downloaded to the unit from a PC
- Connects directly to C-Bus®
- Powered from C-Bus®
- 4M DIN modules wide
- 2 x RS-232 ports for third party device control
- A scheduling tool allows time based events to be programmed into the unit
- A scene programming tool allows installers to quickly and easily program scenes into the unit
- A programming wizard provides a GUI based method for creating basic logic programs.
- More complex programs are produced by advanced users utilising the freeform text programming method
- Programming language based on the standard Pascal computer language, enhanced by Clipsal with specific commands related to C-Bus® control.
- The language supports commands such as:
  - o Conditional logic (if then, and, or, not etc)
  - o Flow Control (for, repeat, while)
  - o Variables (integer, real, Boolean, character, string)
  - o Control and monitor C-Bus® group addresses
  - o Control and monitor C-Bus® scenes
  - o C-Bus® tag names
  - o Serial (RS-232) input/output.

## Telephone Interface

### 5100TAU Telephone Interface



- Offers a dial in and dial out facility, permitting control and status monitoring for a C-Bus® system via any touchtone phone
- Dimensions 146mm x 146mm x 30mm
- It also includes an audio output, so that C-Bus® events can be audibly announced
- Programmed using a connection to a PC running the C-Bus® telephone interface configuration software
- The unit can also act as a C-Bus® PC interface
- Allows C-Bus® to be programmed and configured either locally or from a remote site using a data modem.

### 5100TMB Bracket for mounting to a Clipsal StarServe® enclosure





## C-Bus® to DALI Gateway



**5502DAL**  
DALI Gateway

- C-Bus® to DALI Gateway, DIN rail mounted
- 4M DIN modules wide
- Dimensions 72mm x 85mm x 65mm
- Supports DALI lamp and ballast failure information to be available on the C-Bus® network
- Capable of controlling up to two DALI networks
- The unit supports DALI group addresses, short addresses and scenes the DALI global (broadcast) address
- A remote switch input is included to turn all DALI output channels to the ON or OFF states, irrespective of the current state of the C-Bus®, including no C-Bus®
- Incorporates the C-Bus® clock signal and a network burden
- Up to 50 DALI Gateways can be connected to a single C-Bus® network
- Units Draw 32mA from a C-Bus® network.

## C-Bus® Power Supply



**5500PS**  
Power supply, 350mA

- C-Bus® power supply, DIN rail mounted
- 4M DIN modules wide
- Dimensions 72mm x 85mm x 65mm
- Supplies 350mA at 18-36V dc to the C-Bus® network
- Each power supply supports approximately 18 standard C-Bus® units
- Up to 5 power supplies may be used on any single C-Bus® network.

## C-Bus® PC Interface



**5500PC**  
PC interface

- C-Bus® PC interface, DIN rail mounted
- 4M DIN modules wide
- Dimensions 72mm x 85mm x 65mm
- Features two connections to C-Bus® (2 x RJ45 sockets)
- Features three connections to RS232 (2 x RJ45 and 1 x DB9 sockets)
- Units Draw 32mA from a C-Bus® network.

# C-Bus® System Units and Accessories

## C-Bus® Ethernet Network Interface



**5500CN**  
C-Bus® Ethernet network interface

- C-Bus® ethernet network interface, DIN rail mounted
- 4M DIN modules wide
- Dimensions 72mm x 85mm x 65mm
- Provides a two-way C-Bus® to ethernet network interface
- Allows C-Bus® commands to be distributed via a 10 Base-T ethernet (TCP/IP) network
- Features 2 x C-Bus® RJ45 connections and 1 x eEthernet RJ45 connection
- The unit requires an external 9-12V dc power pack supplied.

## C-Bus® Network Bridge



**5500NB**  
C-Bus® Network bridge

- C-Bus® network bridge, DIN rail mounted
- Based on a 4M DIN module
- Dimensions 72mm x 85mm x 65mm
- Provides a two-way C-Bus® to C-Bus® network interface
- Units Draw 18mA from a C-Bus® network.

## C-Bus® Network Analyser



**5100NA**  
C-Bus® network analyser

- The Network Analyser is a tool used to measure various C-Bus® system parameters:
  - Power Available
  - Clock Signal Present
  - Excess Voltage
  - Add/Remove Burden
  - Excess Cable Indication
- Dimensions 60.5mm x 120mm x 30.3mm
- Measures capacitance, burden, clock signal and network voltage
- The network analyser is powered from C-Bus® and is supplied with a pair of leads.

## C-Bus® Cable



**5005C305B**  
C-Bus® Category 5, 4 pair,  
UTP cable, 305 metres

- 4 pair, Category 5, unshielded cable with a unique outer colour sheath specifically designed for the C-Bus® system
- A maximum of 1000 metres of cable is permitted on any one C-Bus® network
- Two pairs are used for the C-Bus® connection C-Bus® positive (blue + orange) and C-Bus® negative (blue/white + orange/white)
- The C-Bus® cable must be segregated from the mains cable in C-Bus® installations
- C-Bus® cable has a mains rated outer sheath and Standard Cat 5 cable does not have this rating
- Suitable for use inside electrical enclosures.

## C-Bus® Barcode Reader

**5100BCS**  
Bar code reader, USB connection,  
for use with C-Bus® Toolkit software

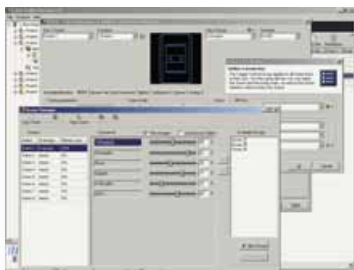


# C-Bus® Software

## C-Bus® Toolkit Software

C-Bus® Toolkit software is a PC-accessible C-Bus® network configuration and customer solution programming utility. It allows the installer to:

- Connect directly to an installer C-Bus® network via a C-Bus® PC interface unit to synchronise logical and physical C-Bus® customer site data
- Configure the C-Bus® network to define the C-Bus® architecture of the customer site and ensure C-Bus® units can communicate with each other
- Program and commission the customer solution
- Save, backup and restore sites. C-Bus® Toolkit has a database for creating and storing customer site programming as projects.



## Schedule Plus Software

Schedule Plus application software provides a powerful and easy use interface to C-Bus® via a standard PC. Schedule Plus has been developed specifically for commercial and industrial applications. It provides scheduling, manual control and monitoring of a C-Bus® system from a PC running Windows 98, 2000, NT, ME or XP.

### 5000SP/3

Schedule Plus application software and technical manuals, two C-Bus® networks licence

### 5000SP5/3

Schedule Plus application software and technical manuals, five network licence

### 5000SPUNL

Schedule Plus application software and technical manuals, unlimited network licence



## HomeGate Software

The HomeGate application software provides a powerful but simple to use interface to C-Bus® via a standard PC. HomeGate provides scheduling, manual control and monitoring of a domestic C-Bus® system from a PC running Windows 98, 2000, NT, ME or XP. HomeGate comprises of a project editor, real time monitoring and control, a real time scheduler, security and access control and internet access. It also includes help and support documentation.

### 5000HG/3

HomeGate application software and technical manuals, two C-Bus® networks licence

### 5000HG5/3

HomeGate application software and technical manuals, five network licence



## HomeSpeak Software

Clipsal HomeSpeak software, in combination with the Clipsal C-Bus® Control and Management System allows control of lighting and other services in a home by speech and text input, using common phrases and sentences.

### 5000HS

HomeSpeak software package, complete with hard wired headset microphone



## C-Gate® Software

The Clipsal C-Gate® server is a software suite that monitors and controls the C-Bus® Control and Management System. It has been produced by Clipsal Integrated Systems to allow third party software developers and existing Building Management Systems to interface to C-Bus® at a high level, allowing high-speed control and monitoring of C-Bus®.

### **5000CG**

C-Gate® software package, single C-Bus® network licence

### **5000CG5**

C-Gate® software package, 5 C-Bus® network licence

### **5000CG10**

C-Gate® software package, 10 C-Bus® network licence

### **5000CG50**

C-Gate® software package, 50 C-Bus® network licence

### **5000CGUNL**

C-Gate software package, unlimited, C-Bus® network licence



## C-Lution® Software

C-Lution® provides a complete solution for real time control and monitoring of Clipsal C-Bus® using clear and concise graphic images.

It provides a software platform on which a customisable, graphical Windows interface to a C-Bus® system can be built. Sophisticated animations can be created to display the operating status of the electrical services.

The package includes a driver library to interface with proprietary equipment such as Building Management Systems, PLCs, etc.

The Clipsal C-Lution® environment is primarily based on a Client/Server architecture, operable through TCP/IP network connections.

### **5000CL75**

C-Lution® software package, 75 points licence

### **5000CL150**

C-Lution® software package, 150 points licence

### **5000CL500**

C-Lution® software package, 500 points licence

### **5000CL1500**

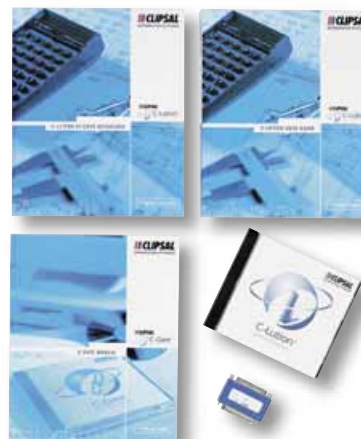
C-Lution® software package, 1500 points licence

### **5000CL15K**

C-Lution® software package, 15,000 points licence

### **5000CLUNL**

C-Lution® software package, unlimited points licence



# C-Bus® Software

## Piced Software

Programming Interface for C-Bus® embedded devices

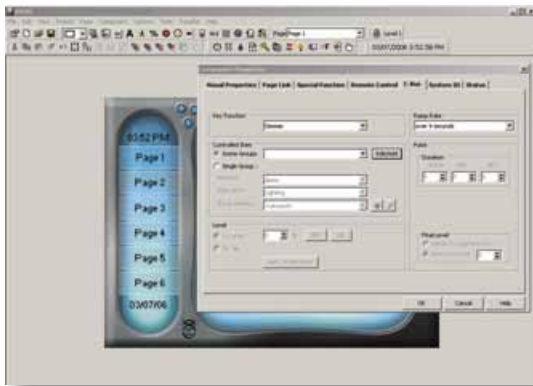
Piced is used to configure the following devices to meet the user's requirements:

- C-Touch black and white touchscreen
- Colour C-Touch touchscreen
- Pascal Automation Controller (PAC)

The Piced software features include:

- Display of many components on many pages
- Scenes for the control of many loads together
- Schedules for the automatic control of loads
- Access control to provide security
- Irrigation control

Piced is freely downloadable from the Clipsal Integrated Systems web site.

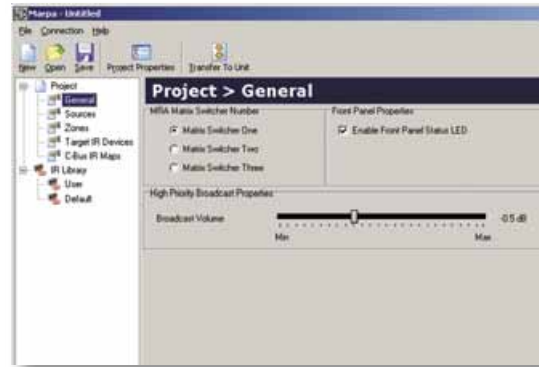


## Marpa Software

Multi Room Audio Rapid Programming Application

Marpa software is used to configure the C-Bus® Multi Room Audio Matrix Switcher unit and is freely available from the Clipsal Integrated Systems web site. It requires the use of USB port on the PC to connect to the Matrix Switcher. Marpa software requires that the C-Bus® Toolkit is installed.

Marpa is freely downloadable from the Clipsal Integrated Systems web site.





## Tica Software

### Telephone Interface Commissioning Application

Tica software is used to configure the C-Bus® Telephone Interface (CBTI). It requires the use of a RS232 serial port on the PC to connect to the CBTI. Tica software requires that C-Bus Toolkit is installed.

Tica software is freely downloadable from the Clipsal Integrated Systems web site.



## Circa Software

### C-Bus® Infrared Commissioning Software

Circa software is used to commission C-Bus® Infrared Devices (5034NIRT). The software allows the user to select IR codes and assign them to particular output channels on an Infrared Device and make associations between IR codes and C-Bus® events. The user can import IR device files created by the 5100RP Infrared Reader device. Circa software requires that C-Bus® Installation Software V2 is installed.

Circa software is freely downloadable from the Clipsal Integrated Systems web site.



# special ordering sheet

## Ordering your neo® switch:

when ordering your special neo® switches, it is important that you complete the order code details correctly. There are a variety of colours to choose from for the three interchangeable parts of the switch assembly (see the diagram to the right).

An example of a special switch and the correct way to order it is shown below. Take a moment to read through it to ensure you select the switch that best suits your décor.

## Order example:

If you decide on a 8 button/4 rocker switch with a White Outer Surround, a Silver Inner Surround and White Rocker Switches, the Order Code would be:



### Key Combination

- 2 2 button / 1 rocker switch
- 4 4 button / 2 rocker switch
- 8 8 button / 4 rocker switch

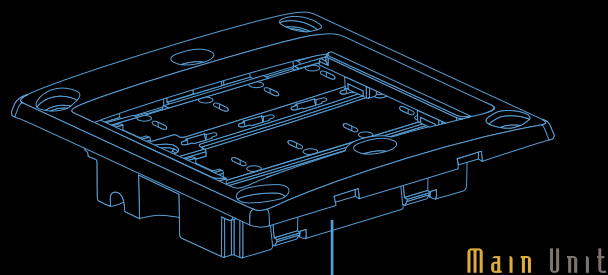
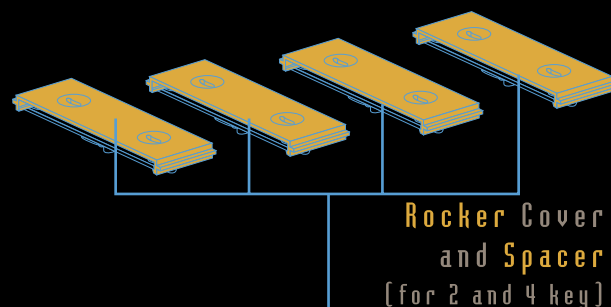
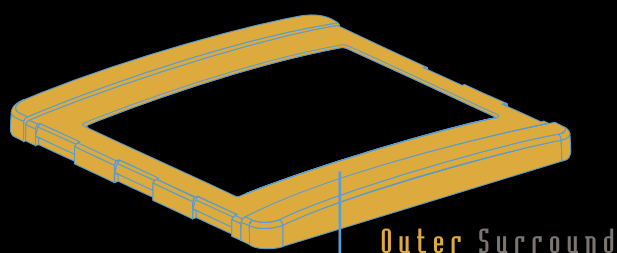
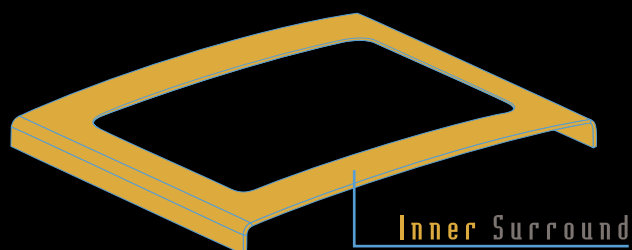
### Outer Surround Colour

### Inner Surround Colour

### Rocker Cover and Spacer Colour

### Colour Selection

Colour Selection	Code
Battleship Grey	1
White	2
Cream	3
Soft Grey	4
Desert Sand	5
Black	6
Brown	7
Brushed Aluminium (Inner Surround Only)	8
Gold (Inner Surround Only)	9



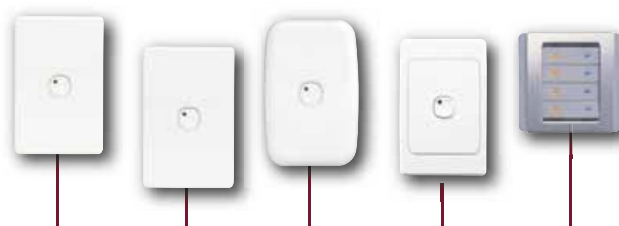
## Everybody likes neo:

stylish, modern and cleverly constructed, neo® has an understated presence that people are drawn to. The attraction is a result of unwavering efforts to make neo® something quite exceptional.



## colour selection chart

You can create virtually any look you want as C-Bus Key Input Units can be mixed in different colour combinations. There is also a huge range of configurations to work for you in any situation.



	Slimline™	Classic	Eclipse®	2000	Neo®
Stainless Steel - SS					
Chrome - CH					
Gold - GD					
Brushed Aluminium - BA					
Brushed Brass - BB					
Polished Brass - BS					
Gunmetal - GM					
Chrome Shadow -3S					
Silver Plate - SP					
Gold Plate - GP					
Neo® Grey - GB					
Neo® Brushed Aluminium* - BA					
Neo® Gold* - GD					
White - WE					
Cream - CM					
Soft Grey - SG					
Desert Sand - DS					
Black - BK					
Brown - BR					
Red - RD					
Grey - GY					
Beige - BG					
Dove Grey - DO					
Nutmeg - NU					

\* These colours only available for the Inner Surround.

Note: Silver and Gold Plate only available on surrounds of 2000 Series.

# Multi-Room Audio System

## System Overview



The C-Bus® Multi-Room Audio System allows users to listen to and control audio sources from convenient locations around the home. The system is both simple to install and easy to use.

The system has been designed utilising new digital audio distribution technology (developed by Clipsal), in conjunction with Clipsal C-Bus® core technology for system communication and integration.

Clipsal's digital audio distribution technology allows for noise and interference free audio reproduction, whilst the C-Bus® technology allows the audio products to be seamlessly integrated and used with all existing C-Bus® products. For example, volume can be controlled from the same C-Bus® switch or touch screen controlling lighting.

In addition, the system allows any input audio source to be made available in any audio zone. Changes to the input audio source can easily be made by the user from a local C-Bus® device at any time, regardless of where the audio source equipment (e.g., CD Player) is physically located. It is compatible with most audio sources and it accommodates standard stereo line level analogue inputs as well as digital audio TOS link inputs.

Infrared signals from hand held remote controls can be routed through the system by connecting IR targets and emitters. IR commands can also be stored by the system and activated by programmed C-Bus® commands.

The C-Bus® Multi-Room Audio System allows a number of different system layout options. This flexibility allows for a wide range of customer needs and installation requirements. Two example schematics are shown opposite.

### Option A

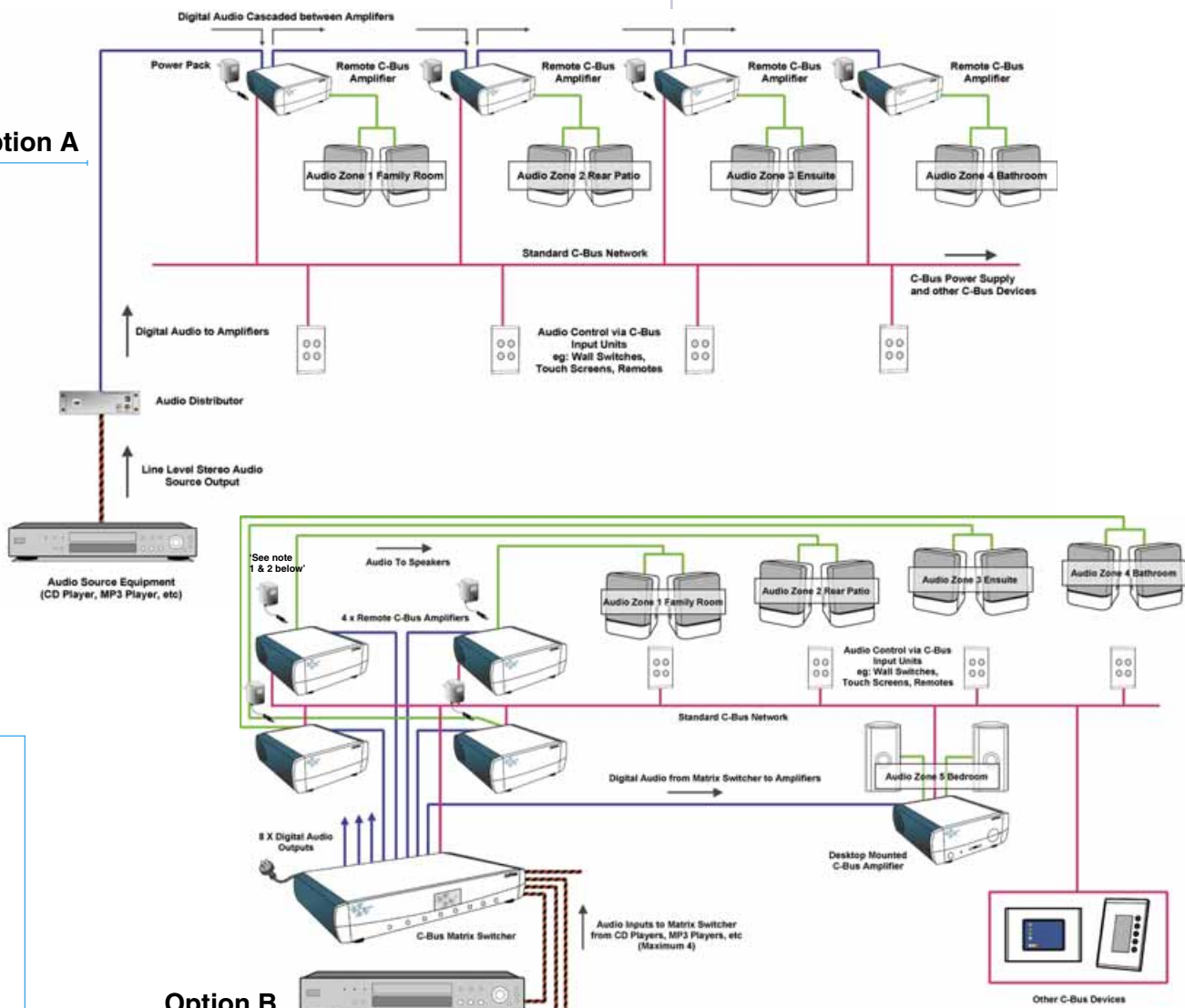
This basic option allows a single audio source to be available to a number of C-Bus® Audio Amplifiers and to be controlled from convenient locations around the home (via any combination of C-Bus® input devices). This option requires one Cat-5 cable for the audio distribution. This cable is cascaded between each Audio Amplifier.

### Option B

This option allows more flexibility. Multiple audio sources are made available to all audio zones, with all the audio sources selectable on a zone-by-zone basis via C-Bus® Input Devices. This option requires a separate (star wired) Cat-5 audio cable to each Audio Amplifier in a zone.

Cable Guide	Green	Pink	Red/Black	Blue
	Standard Speaker Cable	C-Bus Cat 5 Cable	Audio Cable	Cat 5 Cable for Audio

## Option A



## Option B



### Note 1

The C-Bus® Matrix Switcher is able to supply a limited amount of power to the Audio Amplifiers, as the system shares power available via the Cat-5 audio network.

### Note 2

Adding a power supply (5600P24/3750AU) to each amplifier will change the output power rating from 10W to 25W RMS. For further information on MRA power, please refer to [http://www2.clipsal.com/cis/technical/technical\\_support/application\\_notes](http://www2.clipsal.com/cis/technical/technical_support/application_notes)

# Multi-Room Audio System

## Units and Accessories

### Audio Matrix Switcher

#### 560884

Audio Matrix Switcher, C-Bus® enabled, four stereo audio input sources and 8 digital audio output sources.



- Digital audio distribution technology, for noise free audio reproduction
- Four stereo analogue audio source inputs
- Audio sources switched via any C-Bus® input device or via the control panel on the front of the Matrix switcher
- Eight digital audio zone outputs (~45m for each star wired output)
- Cat-5 cable connection between Matrix switcher and amplifiers
- Two mono annunciation inputs
- Voice annunciation of channel changes (selectable)
- One fibre-optic SPDIF input (digital audio compatible)
- One custom digital input to allow cascading of units or for connecting an Audio Distribution Unit giving 1 additional stereo analogue input
- C-Bus® infrared output (2 zones) for third party equipment control
- Reticulated IR support
- User interface consisting of LCD display and tactile feedback switches
- C-Bus® messages control selection of input/output routing
- Contains a C-Bus® PC interface
- Internal C-Bus® PSU
- Internal 4A PSU for the amplifiers
- Configuration set up through or USB
- Control via C-Bus® input devices, such as C-Bus® wall switches, touch screens, etc
- Dimensions: 425mm x 289mm x 75mm.

### Audio Distribution Unit

#### 560011

Audio Distribution Unit, one stereo audio input source and one digital output source



- Distributes a single stereo audio source to C-Bus® Audio Amplifiers via a digitised signal over Cat-5 cable.
- Does not require any C-Bus® programming
- One stereo analogue audio source input
- One digital audio output (cascadable to multiple zones)
- Output can be looped between C-Bus® Audio Amplifiers
- Dimensions: 165mm x 50mm x 40mm.

#### 5600P24/500AU

External power supply for audio distribution unit, switch mode, 24V dc, 500mA (only required if 560011 used to provide an additional digital input for Matrix Switcher)



## Audio Amplifiers

### 560125D

25 Watt/channel (RMS)  
stereo audio amplifier,  
C-Bus<sup>®</sup> enabled,  
desktop-mount version



### 560125R

25 Watt/channel (RMS)  
stereo audio amplifier, C-Bus<sup>®</sup>  
enabled, remote-mount version



### 5600P24/3750AU

External power supply  
for audio amplifier, switch  
mode, 24V dc, 3.75A



- Used in conjunction with the C-Bus<sup>®</sup> Audio Matrix Switcher or the Audio Distribution Unit
- Controllable via C-Bus<sup>®</sup> input devices, such as C-Bus<sup>®</sup> wall switches and touch screens
- Volume, bass, treble, balance controlled by C-Bus<sup>®</sup> input devices
- Quiet digital audio design
- Stereo 25W RMS per channel – Remote and desktop mounted units (when power supply fitted)
- Can be cascaded off one Digital Audio Cat 5 input
- Pre-amp output stage for connecting to a 3rd party power amplifier
- Desktop Amplifier includes power on/off, mute, volume and source select buttons and an infrared target for remote control. Also includes 3.5mm stereo head phone jack
- Set up via C-Bus<sup>®</sup> Toolkit software
- Signal source either:
  - o Distributed digital
  - o Locally connected line-level analogue
  - o Fibre-optic (TOSlink) SP/DIF (16bit, 48kHz)
- IR Target connection for reticulated IR support
- High efficiency, ~70% at full power
- Dimensions (desktop): 181mm x 216mm x 75mm
- Dimensions (remote): 175mm x 209mm x 71mm.

# Multi-Room Audio System

## Units and Accessories

### Audio Speakers

#### In-wall and In-ceiling Speakers

- Perfect for home theatre and multi-room audio applications
- Available with polypropylene or kevlar drivers, providing quality sound in all applications
- Flush mount design ensures only the front face of the speaker is visible and is flush with the wall/ceiling – inside of the wall/ceiling acts as the enclosure
- Provide great sound without losing valuable floor space.

### In-wall Speakers

#### 5600IWP

Flush mounted speakers (pair), rectangular, in-wall, polypropylene drivers



#### 5600IWK

Flush mounted speakers (pair), rectangular, in-wall, kevlar drivers



- Sensitivity: <88dB (polypropylene), <91dB (kevlar)
- Frequency response: 50Hz – 20KHz (polypropylene), 49Hz – 20KHz (kevlar)
- Power output: 60W
- Impedance: 8 ohms
- Dimensions (Rim): 305mm x 220mm
- Colour: white.

## In-ceiling Speakers

### 5600ICP

Flush mounted speakers (pair), circular, in-ceiling, polypropylene drivers



### 5600ICK

Flush mounted speakers (pair), circular, in-ceiling, kevlar drivers



- Sensitivity: <90dB
- Frequency response: 45Hz – 20KHz
- Power output: 60W
- Impedance: 8 ohms
- Dimensions (rim diameter): 240mm
- Colour: white.

## Outdoor Speakers

### 56000DP

Outdoor/shelf top speakers (pair), polypropylene drivers



- Designed to accurately reproduce high fidelity music in an outdoor environment
- Long lasting design incorporating rigid, high-impact plastic cabinets, polypropylene drivers, and powder coated metal grilles
- Sensitivity: <88dB
- Frequency response: 55Hz – 20KHz
- Power output: 35W
- Impedance: 8 ohms
- Colour: white and black
- Water resistant\*.

*\*Clipsal outdoor speakers are not waterproof. Never install outdoor speakers where they are directly hit by rain. Under a porch, eave, or overhang provides a more suitable environment.*



# Multi-Room Audio System

## Units and Accessories

### Multi-Room Audio

#### - Accessories

##### **5600TEE**

RJ45 Bypass Tee Connector for amplifiers with common digital feed that require individual control



##### **8050LD**

IR Emitter Lead, single



##### **8050TR**

IR Target for 5V StarServe® IR system



##### **8050/2LD**

IR Emitter Lead, dual





**8050ST**  
IR Shelf Target, with  
1.8m cable



**8050FT**  
IR Flat Target, with 1.8m cable



**8050TT**  
IR Tube Target, with 1.8m cable



# C-Bus® Wireless System

## (For Australia and New Zealand)



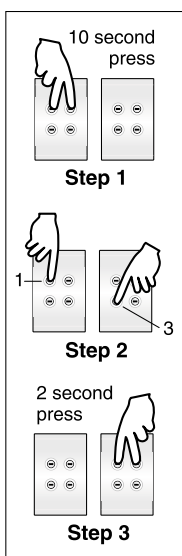
The C-Bus® Wireless product range incorporates a family of C-Bus® Radio Frequency (RF) devices, including Wall Plates, Plug Adaptors, Remote Control and a Gateway to Cat-5 wired C-Bus® units.

C-Bus® Wireless Wall Switches are designed to easily replace standard, 240V wall switches. They incorporate patented Clipsal technology and are two wire devices requiring no neutral (240V a.c. active and load connections only).

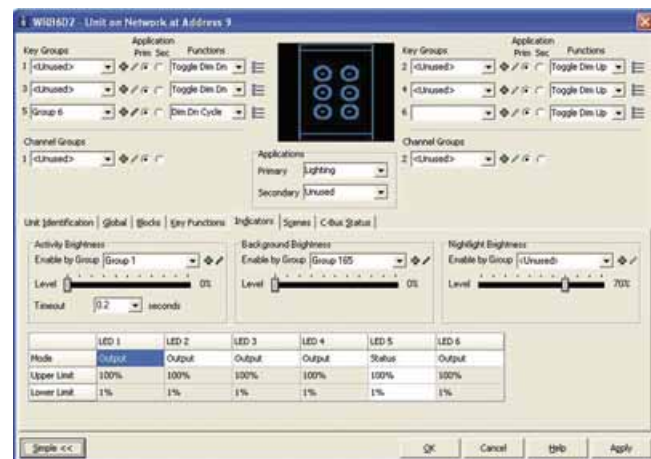
All C-Bus® Wireless units incorporate Clipsal C-Bus® unique Learn Mode functions for programming devices. Wall switches, Plug Adaptors and the Gateway Unit can also be programmed via the C-Bus® Toolkit software. Multiple C-Bus® Wireless units can be linked into a common network using Learn Mode or the C-Bus® Toolkit software.

Associations can be created between buttons on multiple units, so that a button pressed on one unit will operate a button on another (and the connected lights or other electrical devices).

C-Bus® Wireless units include scene capabilities, which allow the user to perform a series of actions across multiple outputs by pressing a single button. For example, on arrival home a home owner could use a scene to switch on lights in the hallway, kitchen and lounge, and also switch on a heater.

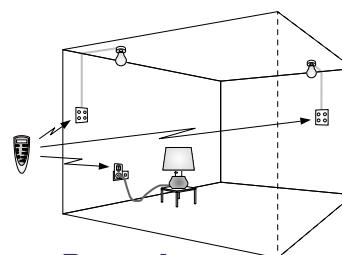


**Grouping C-Bus Wireless Units via Learn Mode**

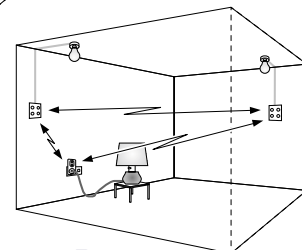


Programming a C-Bus® Wireless Unit via C-Bus® Toolkit software

The diagrams below show two of the many possible basic C-Bus® Wireless unit installations. Room A uses stand-alone units, which can be switched via the Wireless Remote Control. Room B uses networked units where buttons on one unit can operate other units or trigger scenes.



**Room A - Stand Alone C-Bus® Wireless Units**



**Room B - Networked C-Bus® Wireless Units**

## Basic Operation

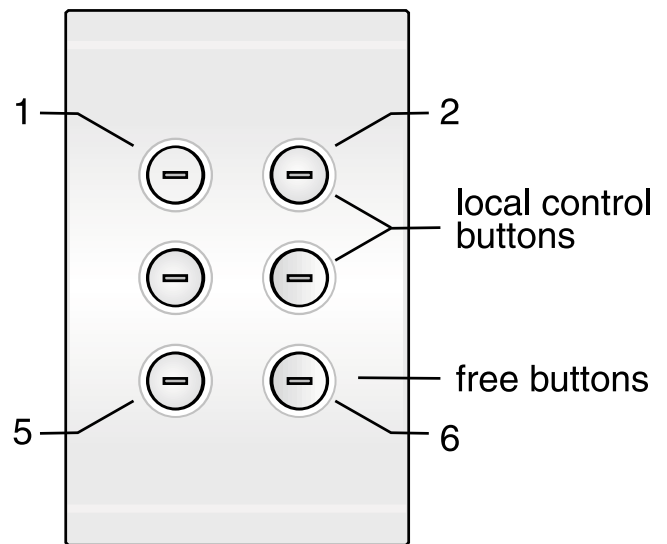
Buttons on a Wireless Wall Switch or Plug Adaptor are organised in pairs that control the output channels (local control buttons). Remaining pairs (free buttons) are used to control outputs on other units when multiple C-Bus® Wireless units are configured as part of a network. For example, the figure to the right shows a 6 button, 2 channel Saturn™ Wireless Dimmer Wall Switch. Its buttons perform the following functions:

- Buttons 1 and 2 control the first channel. (A quick press on either button toggles the channel on or off. A long press on button 1 or 2 dims down or up respectively).
- Buttons 3 and 4 control the second channel.
- Buttons 5 and 6 are unused when the unit is used as a stand-alone unit. They may be used to control outputs on other units when part of a multi-unit network.

When a C-Bus® Wireless Wall Switch or Plug Adaptor unit is first installed, it functions as a stand-alone unit. In this basic default mode, the unit functions as a dimmer or switch, depending on the model.

C-Bus® Wireless Plug Adaptors have one output channel (a single, 240V a.c. socket) and two buttons. Wall Switch units are available in one or two output channel versions, with two, four, six or eight buttons (eight button, Neo® only). Each channel controls one or more lights or other electrical devices connected to its output.

### Two output channels



# C-Bus® Wireless System

## (For Australia and New Zealand)

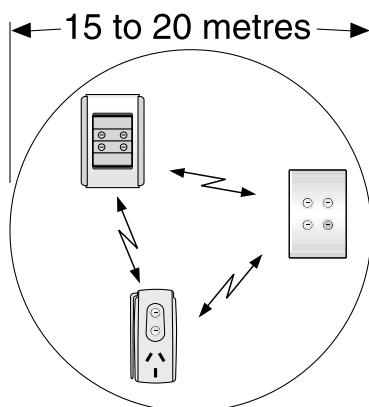


### C-Bus® Wireless Networks

To experience the full capabilities of wireless operation, C-Bus® Wireless units must be linked together to form a network.

To communicate with each other, units within the same network should be located within 15 to 20 metres of each other. This distance depends on building materials used.

Up to 30 units may be connected within the same C-Bus® Wireless network.



### C-Bus® Wireless Network Security

C-Bus® Wireless units can optionally use 128 bit-encrypted messages to communicate with each other. This results in a highly secure network.

### Nearby C-Bus® Wireless Networks

It is possible to have several separate networks present alongside each other without interfering, as each separate C-Bus® Wireless network has an automatically assigned, unique 'House Code'.

### C-Bus® Wireless Modes of Operation

C-Bus® Wireless units have five major modes of operation.

### Mode 1

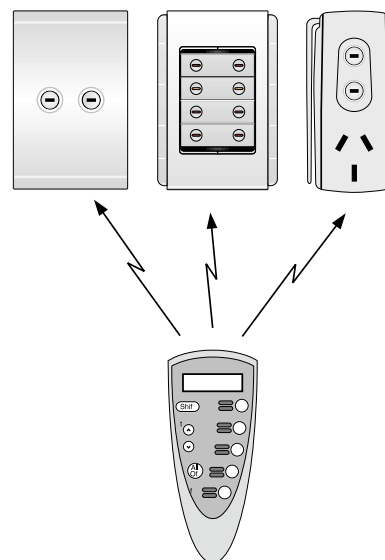
#### Stand-Alone Mode

In this mode, C-Bus® Wireless Wall Switches and Plug Adaptors acts as stand-alone dimmers or switches and make no use of the inbuilt wireless capabilities. No setup is required for this mode, Plug Adaptors simply plug into the mains, and Wireless Wall Switches are installed by a licensed electrician in place of existing wall switches. The buttons on the units control the local dimming or switching channels of the unit only.

### Mode 2

#### Simple Remote Controlled Mode

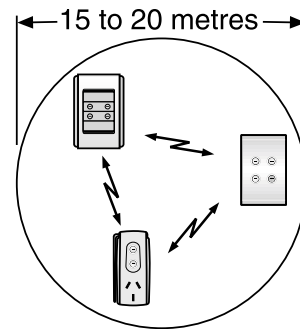
In this mode, a C-Bus® Wireless Wall Switches acts as a stand-alone dimmer or switch and a C-Bus® Wireless Remote Control operates the Wall Switch from a distance. This mode is simple to set up and is suitable for small installations where networking is not needed. C-Bus® Wireless Wall Switch or Plug Adaptor units are controlled using a C-Bus® Wireless Remote: In this mode, the buttons on the Wireless Wall Plate control the local dimming or switching channels of the unit, and the Remote Control is linked to buttons on a Wall Switch using a Learn Mode operation. No PC is required.



## Mode 3

### Networked Mode

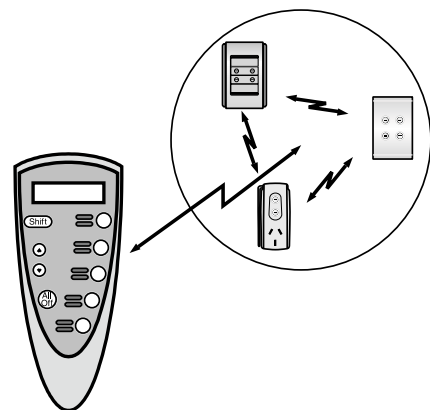
In this mode, a C-Bus® Wireless Wall Switch acts as a dimmer or switch and multiple C-Bus® Wireless units can be linked to each other with the C-Bus® Wireless technology. This mode is simple to setup, and is suitable for more complex installations. In this mode, local control buttons control the dimming or switch channel of the unit, and may also control other C-Bus® Wireless units. Free buttons can control the dimmer or switch channels of other units via a C-Bus® Wireless network established using Learn Mode operations. The operation of buttons is set using Learn Mode operations or using the C-Bus® Toolkit software.



## Mode 4

### Networked with Remote

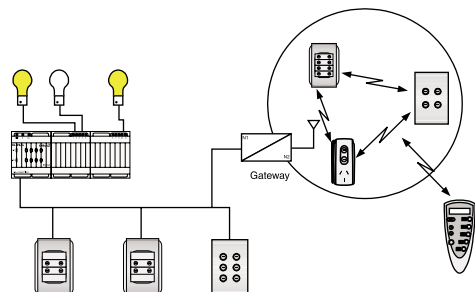
In this mode, a C-Bus® Wireless Wall Switch acts as a dimmer or switch and multiple C-Bus® Wireless units can be linked to each other with the C-Bus® Wireless technology. Local control buttons control the dimming or switch channel of the unit, and may also control other C-Bus® Wireless units. Free buttons can control the dimmer or switch channels of other units via a C-Bus® Wireless network established using Learn Mode operations or C-Bus® Toolkit software. Buttons on the Wireless Remote are linked to Wall Switch and Plug Adaptor buttons as desired.



## Mode 5

### Networked mode in combination with Cat-5 wired C-Bus® units

The C-Bus® Wireless Gateway is used to link a C-Bus® Wireless network to a C-Bus® Cat-5 wired network. It is functionally equivalent to a C-Bus® Network Bridge. Using the Gateway, C-Bus® Wireless and Cat-5 networks can communicate and interact with each other. Both Wireless and Cat-5 Network's use the same command structure, and are 100% compatible.



# C-Bus® Wireless System

## (For Australia and New Zealand)

### C-Bus® Wireless Wall Switch Range

- Allow existing, 240V a.c. operated wall switches to be replaced with C-Bus® Wireless Wall Switches containing C-Bus® Wireless technology
- Communicate with other C-Bus® Wireless devices using radio frequency wireless messaging and form a C-Bus® Wireless Network
- Switch buttons enable control of the load/s directly connected to the wall switch and can also control loads connected to other C-Bus® Wireless devices
- Each switch button can be programmed to function as an on/off switch, a dimmer, or can issue a scene, as well as a number of other options
- Can be controlled via C-Bus® Cat-5 Wired Input Units (via a Gateway Unit), such as touch screens
- Unique C-Bus® Wireless House Code
- 128-encrypted communications
- 2-Wire connection – active and load (no neutral required)
- Programmable via C-Bus® Learn features or via C-Bus® Toolkit software
- Available in 1 channel and 2 channel versions
- Leading Edge and Trailing Edge Dimming Units, 1 channel 500VA and 2 Channel 250VA per channel
- Relay unit, 1 channel 8A (fluorescent) rating and 2 Channel 4A (fluorescent) per channel
- Available in Neo® and Saturn™ style.

### Wall Switches with Integral Relay Outputs Saturn™ Style

#### 5882R8F1AA

C-Bus® Wireless wall switch, 2 button, 1 channel relay, 8A (fluorescent) rating



#### 5884R8F1AA

C-Bus® Wireless wall switch, 4 button, 1 channel relay, 8A (fluorescent) rating



#### 5886R8F1AA

C-Bus® Wireless wall switch, 6 button, 1 channel relay, 8A (fluorescent) rating



## Neo® Style

### 5884R4F2AA

C-Bus® Wireless wall switch,  
4 button, 2 channel relay, 4A  
(fluorescent) per channel rating



### 5886R4F2AA

C-Bus® Wireless wall switch,  
6 button, 2 channel relay, 4A  
(fluorescent) per channel rating



**Available in white, black, cream and  
mid-brown**

### 5852R8F1AA

C-Bus® Wireless wall switch,  
2 button, 1 channel relay,  
8A (fluorescent) rating



### 5854R8F1AA

C-Bus® Wireless wall switch,  
4 button, 1 channel relay, 8A  
(fluorescent) rating



### 5858R8F1AA

C-Bus® Wireless wall switch,  
8 button, 1 channel relay,  
8A (fluorescent) rating





# C-Bus® Wireless System

## (For Australia and New Zealand)

### Neo® Style

#### 5854R4F2AA

C-Bus® Wireless wall switch,  
4 button, 2 channel relay,  
4A (fluorescent) per  
channel rating



#### 5858R4F2AA

C-Bus® Wireless wall switch,  
8 button, 2 channel relay, 4A  
(fluorescent) per channel rating



Available in grey and silver, white electric,  
cream, desert sand, soft grey, black  
and brown

### Wall Switches with Integral Leading Edge Dimmer Outputs

### Saturn™ Style

#### 5882D2L1AA

C-Bus® Wireless wall switch,  
2 button, 1 channel leading  
edge dimmer, 500VA



#### 5884D2L1AA

C-Bus® Wireless wall switch,  
4 button, 1 channel leading  
edge dimmer, 500VA



#### 5886D2L1AA

C-Bus® Wireless wall switch,  
6 button, 1 channel leading  
edge dimmer, 500VA





## Neo® Style

### 5884D1L2AA

C-Bus® Wireless wall switch,  
4 button, 2 channel leading  
edge dimmer, 250VA  
per channel



### 5886D1L2AA

C-Bus® Wireless wall switch,  
6 button, 2 channel leading edge  
dimmer, 250VA per channel



**Available in white, black, cream and  
mid-brown**

### 5852D2L1AA

C-Bus® Wireless wall switch,  
2 button, 1 channel leading edge  
dimmer, 500VA



### 5854D2L1AA

C-Bus® Wireless wall switch,  
4 button, 1 channel leading edge  
dimmer, 500VA



### 5858D2L1AA

C-Bus® Wireless wall switch,  
8 button, 1 channel leading edge  
dimmer, 500VA



# C-Bus® Wireless System

## (For Australia and New Zealand)

### Neo® Style

#### 5854D1L2AA

C-Bus® Wireless wall switch,  
4 button, 2 channel leading edge  
dimmer, 250VA per channel



#### 5858D1L2AA

C-Bus® Wireless wall switch,  
8 button, 2 channel leading edge  
dimmer, 250VA per channel



Available in grey and silver, white electric,  
cream, desert sand, soft grey,  
black and brown

### Wall Switches with Integral Trailing Edge Dimmer Outputs Saturn™ Style

#### 5882D2T1AA

C-Bus® Wireless wall switch,  
2 button, 1 channel trailing edge  
dimmer, 500VA



#### 5884D2T1AA

C-Bus® Wireless wall switch,  
4 button, 1 channel trailing edge  
dimmer, 500VA



#### 5886D2T1AA

C-Bus® Wireless wall switch,  
6 button, 1 channel trailing edge  
dimmer, 500VA



**5884D1T2AA**

C-Bus<sup>®</sup> Wireless wall switch,  
4 button, 2 channel trailing edge  
dimmer, 250VA per channel



**5886D1T2AA**

C-Bus<sup>®</sup> Wireless wall switch,  
6 button, 2 channel trailing edge  
dimmer, 250VA per channel



**Available in white, black, cream and  
mid-brown**

# C-Bus® Wireless System

## (For Australia and New Zealand)

### Neo® Style

#### 5852D2T1AA

C-Bus® Wireless wall switch,  
2 button, 1 channel trailing edge  
dimmer, 500VA



#### 5854D1T2AA

C-Bus® Wireless wall switch,  
4 button, 2 channel trailing edge  
dimmer, 250VA per channel



#### 5854D2T1AA

C-Bus® Wireless wall switch,  
4 button, 1 channel trailing edge  
dimmer, 500VA



#### 5858D1T2AA

C-Bus® Wireless Neo wall switch,  
8 button, 2 channel trailing edge  
dimmer, 250VA per channel



#### 5858D2T1AA

C-Bus® Wireless wall switch,  
8 button, 1 channel trailing edge  
dimmer, 500VA



**Available in grey and silver,  
white electric, cream, desert sand, soft  
grey, black and brown**

## Saturn<sup>™</sup> - Pre-labelled Button Caps

### 5080LC-8

Pre-labelled button caps individually printed with commonly used labels (pack of 66)



## Saturn<sup>™</sup> - Glass Facias Rectangular Series

### 508xF,GF

Glass facia only, rectangular, white



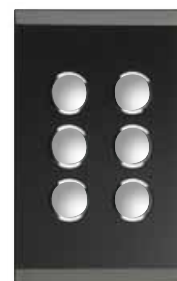
### 508xF-30

Glass facia only, rectangular, cream



### 508xF-60

Glass facia only, rectangular, black



### 508xF-70

Glass facia only, rectangular, mid-brown



'x' denotes number of buttons i.e. 2, 4 or 6 button

# C-Bus® Wireless System

## (For Australia and New Zealand)

### Saturn™ - Mounting Frames Rectangular Series

#### **5850F,BK**

Mounting frame, rectangular,  
black (pack of 5)



#### **5850F,BR**

Mounting frame, rectangular,  
brown (pack of 5)



#### **5850F,CM**

Mounting frame, rectangular,  
cream (pack of 5)



#### **5850F,DS**

Mounting frame, rectangular,  
desert sand (pack of 5)



#### **5850F,SG**

Mounting frame, rectangular,  
soft grey (pack of 5)



#### **5850F,WE**

Mounting frame, rectangular,  
white (pack of 5)



## Saturn™ - Mounting Spacer Rectangular Series

### 5080SD,BK

Mounting spacer, rectangular,  
black (pack of 5)



### 5080SD,CM

Mounting spacer, rectangular,  
brown (pack of 5)



#### Available in the following colours

White  
Black  
Brown  
Cream  
Desert Sand  
Soft Grey

## Neo™ - Mounting Spacer Rectangular Series

### 5050SD,CM

Mounting spacer, rectangular



#### Available in the following colours

White  
Black  
Brown  
Cream  
Desert Sand  
Soft Grey

# C-Bus® Wireless System

## (For Australia and New Zealand)

### Neo® - parts pack

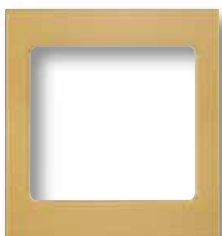
#### E5050IS

Inner surround, square series,  
(pack of 5)



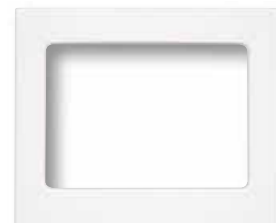
#### Available in the following colours

White  
Brushed Aluminium  
Black  
Brown  
Cream  
Desert Sand  
Gold  
Soft Grey



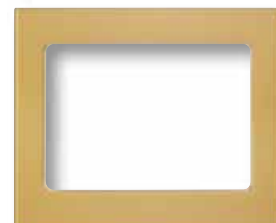
#### 5050IS

Inner surround,  
rectangular series,  
(pack of 5)



#### Available in the following colours

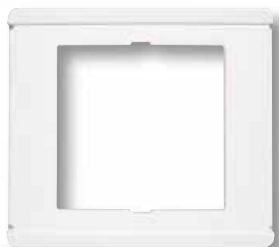
White  
Brushed Aluminium  
Black  
Brown  
Cream  
Desert Sand  
Gold  
Soft Grey





#### **E50500S**

Outer surround, square,  
(pack of 5)



#### **Available in the following colours**

White  
Black  
Brown  
Cream  
Desert Sand  
Soft Grey  
Battleship Grey

#### **50500S**

Outer surround,  
rectangular series,  
(pack of 5)



#### **Available in the following colours**

White  
Black  
Brown  
Cream  
Desert Sand  
Soft Grey  
Battleship Grey

#### **5052NRP**

Rocker covers and spacers  
for E5052NL and 5052NL  
series, (pack of 5 rocker  
switch covers and  
10 spacers)



#### **5054NRP**

Rocker covers and spacers  
for E5054NL and 5054NL  
series, (pack of 10 rocker  
switch covers and  
10 spacers)



#### **5058NRP**

Rocker covers for  
E5058NL and 5058NL  
series, (pack of 20)



#### **Available in the following colours**

White  
Black  
Brown  
Cream  
Desert Sand  
Soft Grey  
Battleship Grey

# C-Bus® Wireless System

## (For Australia and New Zealand)

### C-Bus® Wireless Plug Adaptors

- Allow devices normally plugged into 240V a.c. general purpose outlets (for example, lounge or bedside lamps) to be controlled using C-Bus® Wireless technology
- Communicate with other C-Bus® Wireless devices (such as Wireless Wall Switches) using radio frequency wireless messaging and form a C-Bus® Wireless Network
- C-Bus® Wireless Plug Adaptors plug into existing power outlets, and the device to be controlled via C-Bus® Wireless then piggybacks into the Plug Adaptor. No additions or alterations to existing wiring are required
- Plug into a Standard Australian and New Zealand general purpose electrical outlet
- Available in Leading Edge Dimming and Trailing Edge Dimming Units, as well as a Relay output version
- Integral, easily accessible control/override/programming buttons
- Can be controlled via C-Bus® Cat-5 wired Input units (via a Gateway Unit), such as touch screens
- Unique C-Bus® Wireless House Code
- 128-encrypted communications
- Programmable via C-Bus® Learn features or via C-Bus® Toolkit software.

### Dimmers

#### 5812D3L1AA

C-Bus® Wireless plug adaptor, 1 channel leading edge dimmer, 3A



#### 5812D2T1AA

C-Bus® Wireless plug adaptor, 1 channel trailing edge dimmer, 2A



## Relay

### 5812R10F1AA

C-Bus® Wireless plug adaptor,  
1 channel relay, 10A



## C-Bus® Wireless Remote Control Unit

### 5888TXBA

C-Bus® Wireless  
hand-held remote  
control unit with holder



### 5080TXC

C-Bus® Remote  
Control Holder (spare)



- Allows control of buttons on C-Bus® Wireless Wall Switch and Plug Adaptor units remotely
- Utilises radio frequency (RF) communication
- Does not need to be pointed directly at the unit being controlled
- Capable of controlling up to 10 separate Wall Switch or Plug Adaptor buttons
- A single button on a Wall Switch or Plug Adaptor can be controlled by up to two C-Bus® Wireless Remote Controls
- Buttons are organised in two banks of five buttons. Banks are alternately selected by pressing the 'Shift' button
- Up and Down buttons allow dimming of the level associated with the last button selected (on dimmer units)
- 'All Off' button provides a convenient way to switch off all buttons associated with the remote control unit
- C-Bus® Wireless Groups and Scenes can be controlled from the remote
- LCD screen and buttons incorporate a blue LED backlight
- Each control button incorporates a clear window for button labelling
- Supplied with pre-labelled stickers for identification of common areas i.e. kitchen, lounge, dining etc
- 20-25m range (typical).

# C-Bus® Wireless System

## (For Australia and New Zealand)

### C-Bus® Wireless Gateway

#### 5800WCGA

C-Bus® Wireless Gateway



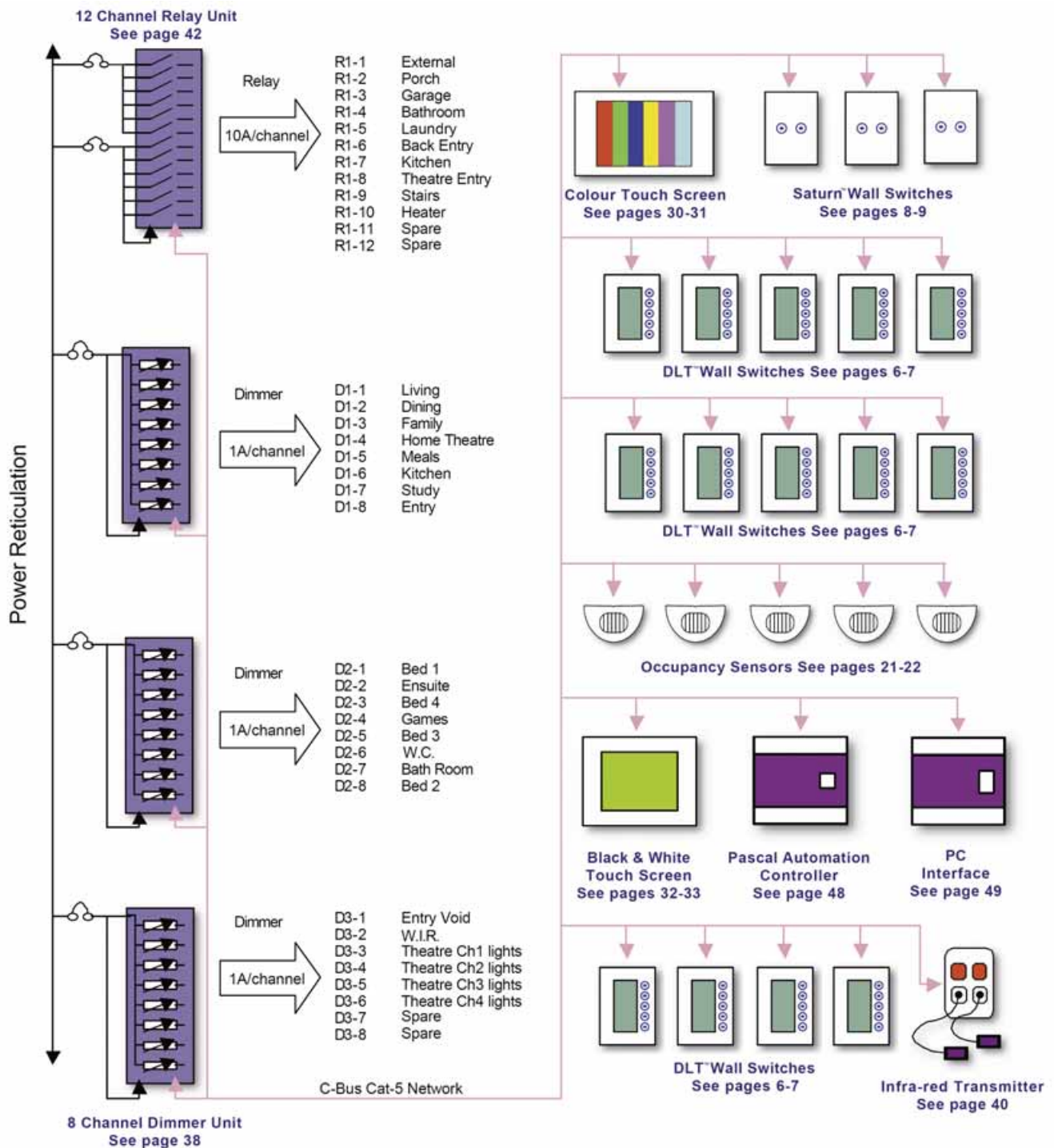
- Allows seamless communication between a wired C-Bus® network and a C-Bus® Wireless Network
- Desktop or wall mounted
- A C-Bus® Cat-5 cable connected to the wired C-Bus® network is plugged into an RJ45 socket at the rear of the Gateway
- Power for the Gateway is provided by the wired C-Bus® network, no additional power source is required
- The connection to a C-Bus® Wireless network is accomplished by a C-Bus® Learn Mode operation
- The connection to a C-Bus® Cat-5 wired network requires the use of the C-Bus® Toolkit software
- The Gateway supports routing of messages into and through both wired and wireless networks
- Messages on each network (such as button presses) can be passed through to the adjacent network.

85

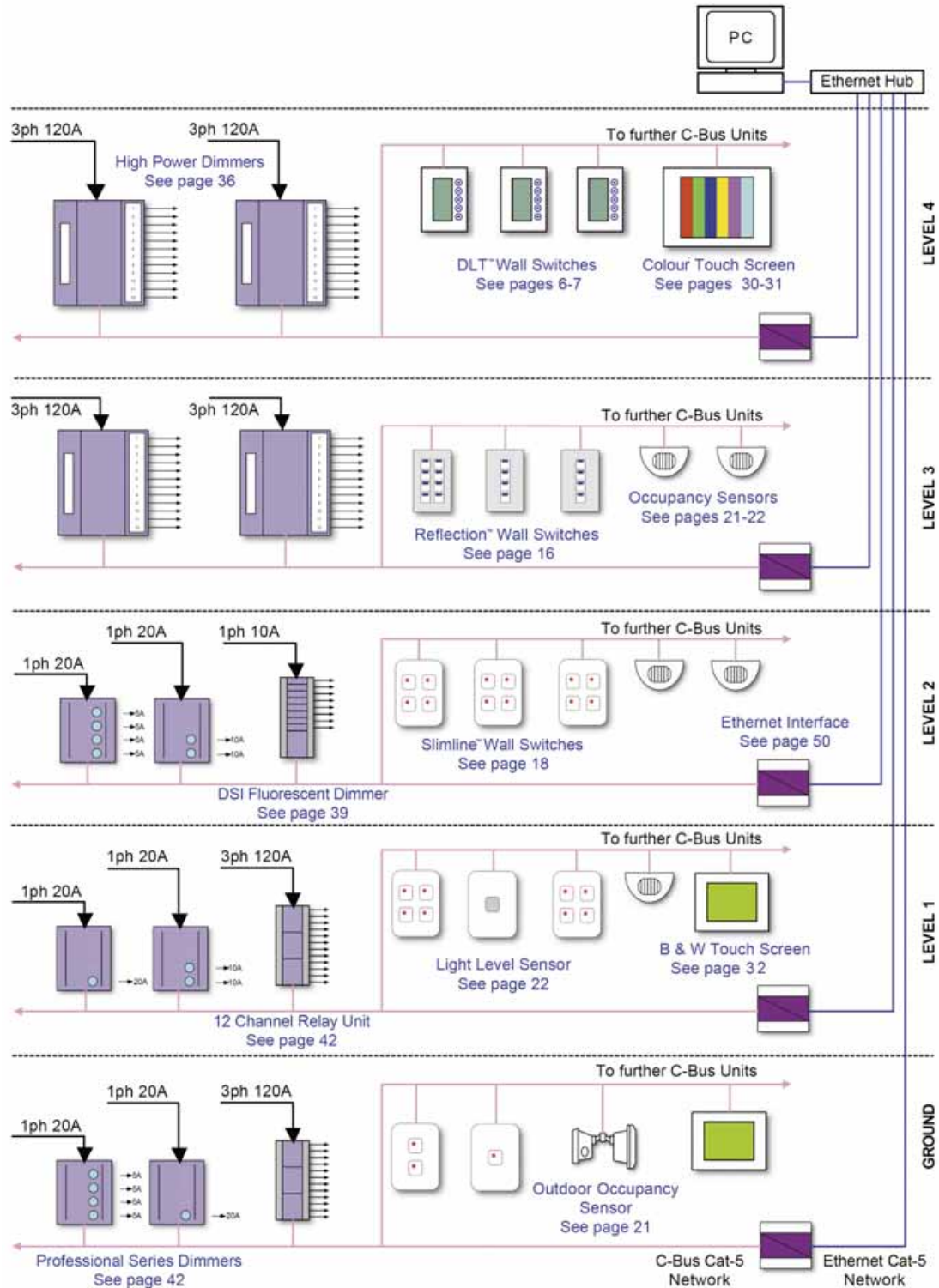
# Clipsal C-Bus®

## Typical Schematics

### Home



## Commercial High Rise Building





#### Product of

#### **Clipsal Integrated Systems**

A division of Clipsal Australia Pty Ltd

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